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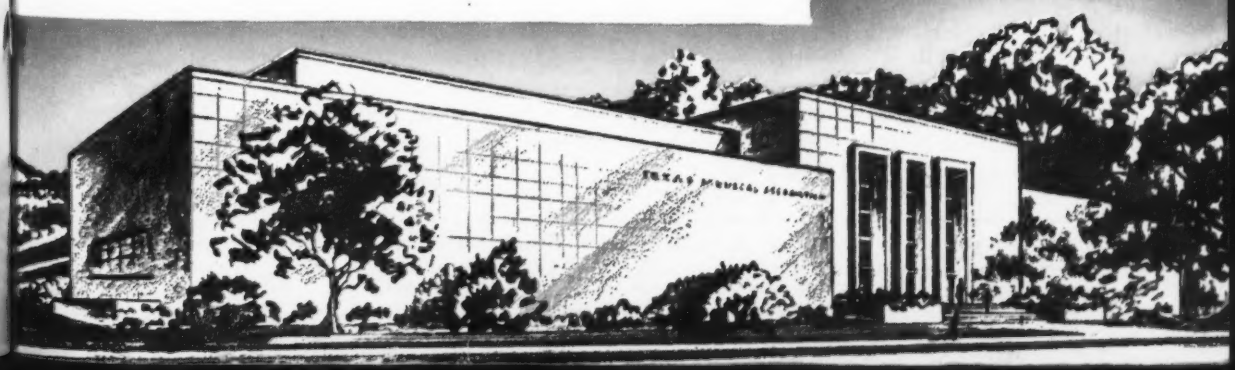

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President's Page

THE SEARS-ROEBUCK FOUNDATION PLAN

The philosophy expressed by General Robert E. Wood, retired chairman of the board of directors, Sears-Roebuck and Company: "Business must account for its stewardship not only on the balance sheet, but also in matters of social responsibility," has led to the Physicians' Plan of Assistance as announced by Sears-Roebuck in early September, 1955, as a part of its Foundation's plan for assisting in the establishment or improvement of medical practice units. A medical practice unit, as defined by the Foundation, is one doctor or a group of doctors establishing a practice of medicine.

It is realized that perhaps only one physician in this regional area may profit from this plan each year, but the principle which prompts it and the results expected from it are so important to free and unhampered industry and medicine that I believe it behooves every one of us to become thoroughly acquainted with the details of the plan. Its continuation after 1965 depends on the reception and support by the medical profession, which further indicates the need for a knowledge of its purpose and scope.

Briefly, the following points indicate how the plan will function. The Foundation has set aside $125,000 each year for ten years to be placed in a revolving fund for unsecured, ten year loans, at 6 per cent interest until the note is paid. For the purpose of administration, the country has been divided into five sections or regions. Each section will receive $25,000 to be used for loans, which will range from $1,000 to $25,000. Hence, it is possible for more than one physician to take advantage of this plan in each region, providing the total does not exceed $25,000. A medical advisory board chosen upon nomination by the Board of Trustees of the American Medical Association with Dr. F. J. L. Blasingame, Wharton, as chairman will advise the Foundation on medical matters as well as choose recipients of the loans. Dr. Robert D. Moreton, Fort Worth, is our regional member.

Applications may be obtained from the Physicians Placement Service at our headquarters in Austin at 1801 North Lamar Boulevard.

The Foundation has two fundamental requirements concerning the plan: (1) there must be a real need and (2) the loan must provide for better medical service in an area where such services are either nonexistent or considered inadequate.

The physician or combination of physicians seeking this loan first must exhaust all local possibilities for financing the unit. Evidence of effort and thought in planning a well organized, effective practice unit must be given. The Foundation already has gone a long way in fulfilling this last requirement. It has spent approximately $35,000 in preparation of a planning guide to assist the physician in establishing a practice, in building a clinic, and in purchasing equipment. This project alone may inspire young physicians to begin their practice in the smaller towns. It is generally recognized now that doctors are doing better financially in rural or semirural areas than they are in the larger cities. Any plan or project that will make it easier for the physician just entering practice to take advantage of this fact is to be highly commended.

The Foundation hopes that the plan will provide demonstration units leading to a better distribution of physicians and at the same time will offer more medical care for the medical dollar. It is contemplated that by 1956 there will be 85 such units in operation throughout the country. Projecting this on to 1980, without any further grant from the Foundation beyond 1965, there will be 354 medical units in existence and a revolving fund of nearly $9,000,000. This is the "chain reaction" effect and "seed" principle it is hoped the plan will create.

This plan is a step in the right direction. It proposes to improve medical care without sacrificing any of our principles of autonomy. I believe it merits our wholehearted support.

J. Layton Cochran

On Call

TUBERCULOSIS STILL KILLS

During 1954 someone in the United States died of tuberculosis every seventeen minutes!

As alarming as this may sound, however, the death rate per 100,000 population has been falling steadily since 1900. In spite of this decrease in the death rate, tuberculosis still remains as a nationally important medical problem. During the fiscal year 1954, the Veterans Administration operated approximately 12,000 hospital beds for service-connected cases of tuberculosis at a cost of some $46,000,000. According to the Texas Research League, tuberculosis remains the chief cause of death from disease in Texas in persons between 15 and 34 years of age, and it kills more people than all other infectious and parasitic diseases combined.

With these facts in mind, the Committee on Tuberculosis of the Texas Medical Association under the chairmanship of Dr. W. D. Anderson, San Angelo, has been evaluating the problem in Texas with the view of formulating a comprehensive plan for the care, treatment, and control of the disease through the united efforts of the private physician, interested groups, and governmental divisions within the state.

Whether this plan is a 5, 10, or even 20 year one remains to be seen, but to the committee it is imperative for several reasons. Important is the reluctance of the Texas Legislature to increase state tuberculosis hospitals' budgets without some well coordinated program on the part of state agencies, private physicians, and lay organizations designed as an intelligent approach with foreseeable and certainly measurable results.

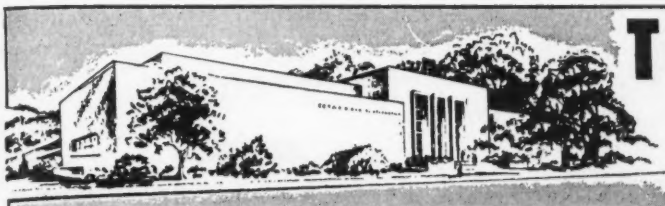
By using the National Tuberculosis Association's estimates, it is possible to create a "rule of thumb" concerning the extent of the Texas tuberculosis problem and its expected increase. In 1953 there were 19,549 active cases and an estimated 39,000 inactive cases of tuberculosis in Texas. If the rate of incidence does not change, it can be assumed that by 1975 there may be as many as 25,000 active and about 50,000 inactive cases. And yet, according to the closest estimates available, there will be only 4,523 permanent hospital beds for tuberculous patients in Texas by the end of 1955. This figure includes facilities under federal, state, county, city-county, city, nonprofit association, church, partnership, and corporate jurisdiction alike.

The committee has discovered also that the problem of tuberculosis in Texas is peculiar in that primarily three groups within the state's population influence the incidence. These groups are the Negroes, the Latin

Americans, and the illegal immigrants. In the cases of the Negro and the Latin American, substandard housing with inadequate public sanitation coupled with the lack of sufficient doctors, nurses, social workers, and other skilled persons trained in case finding, care, and treatment have caused these groups to rank extremely high in the percentage of tuberculosis cases in the state. The illegal immigrant constitutes the third major population group affecting the incidence of tuberculosis. This group, numbers of whom probably have been rejected for legal entry because of tuberculosis, serve as a continuing source of infection and reinfection. It can be said, then, that tuberculosis is a problem of some importance in the Texas health picture.

A look at Texas state tuberculosis hospitals reveals a lack of bed space and qualified personnel, and a waiting list. At the end of 1954, the state had facilities for only 1,100 permanent tuberculosis beds, but it is estimated that an additional 1,500 will have been added by the end of 1955. Another problem of concern has been noted by Dr. John S. Chapman of Dallas. He points out the problem of children with tuberculosis, particularly the very young age group from birth to 7 years. Although the state has no planned program of care for this age group, the year 1952 recorded 75 deaths from tuberculosis. Because of the lack of adequate staff in state hospitals plus the tremendous expense required for facilities to include these patients in the over-all state program, it has been suggested that the proper care could be found in pediatric centers rather than state hospitals. If the state would provide a per diem payment of $7 for each tuberculous child, regardless of where he might be hospitalized, the state would solve the situation, spending few dollars compared to the cost of building new facilities and providing adequate personnel.

In summary, there is work to do, and the Committee on Tuberculosis recognizes its functions as an important part of the over-all cooperative attempt to solve this problem in Texas through such worthy activities as "Searchlight on TB," a program of comprehensive investigation sponsored by the Texas Tuberculosis Association—with which the committee is working on a continuing basis. It recognizes, also, that latest techniques have led many doctors to believe that tuberculosis is a problem not far off from solution. However, the present situation calls for a basic solution, and the committee is directing its activities toward this point. Most recently, it has offered to provide competent speakers and programs on tuberculosis for county medical society meetings upon request. These programs include the popular symposium-type discussions as well as films, with presentations on recent developments in the proper use of chemotherapeutic drugs and on criteria for surgical treatment.



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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

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LEGISLATION TAKES SPOTLIGHT

Legislation and governmental affairs will be high lighted during the week-end set aside for a meeting of the Executive Council of the Texas Medical Association and for a conference of county medical society officials.

Senator Price Daniel and Clarence E. Manion, former dean of the College of Law at the University of Notre Dame and former chairman of the Commission on Intergovernmental Relations, will speak at a symposium on legislation designed especially for the county officials Saturday afternoon, January 21, at the Association building in Austin. In addition, members of the Council on Medical Jurisprudence will take part in a round-table discussion of important medical legislation pending in Congress.

Saturday morning, the conference of county officials will include brief presentations by Texas Medical Association representatives designed to review in capsule form some of the organizational and service aspects of the county-state-national medical framework within which the county officials, many taking office for the first time, will be working during the year.

All those participating in the Saturday meetings are invited to remain for the Executive Council meeting the next morning. Here again, both experienced and new county society officers and committee chairmen can be brought up to date on business affecting the medical profession in Texas.

Besides the programs and meetings already mentioned, a number of Association councils and committees will convene Friday and Saturday, January 20 and 21.

The entire week-end of activity, although planned especially for certain segments of the county and state membership, will be open to any interested member of the Texas Medical Association or its Woman's Auxiliary.

NEW COUNTY PROGRAMS OFFERED

The variety of "packaged programs" which the Texas Medical Association is ready to offer county medical societies is increasing.

Of special significance with the opening of Congress in January is the request of the Council on Medical Jurisprudence that it be invited to supply speakers on legislative topics for county meetings during the early months of the new year. A letter from Dr. G. W. Cleveland, Austin, chairman of the council, to county society secretaries points out five measures pending in Congress which should be of particular interest to doctors: social security amendments authorizing cash benefits to disabled workers at age 50, compulsory inclusion of physicians under social security, Jenkins-Keogh type bills to give self employed persons the same tax advantages as those employed by business and industry, federal health reinsurance, and broadened plans for medical care of dependents of persons in the armed forces.

The Committee on Tuberculosis, through its chairman, Dr. W. D. Anderson of San Angelo, has announced the availability of panelists, individual speakers, and motion pictures relating to diagnosis and care of tuberculosis with emphasis on chemotherapy and selection of patients for surgical procedures.

Negotiations suggest that soon teams of speakers expert on the control of other individual types of disease will be ready to disseminate latest scientific information at county society meetings.

As has been true in the past, Association officers and staff are pleased to discuss organizational problems and socioeconomic subjects and the Memorial Library is happy to provide tape recordings and motion pictures on scientific subjects upon request.

County society program chairmen are invited to consult the Executive Secretary for details about any of the types of programs mentioned or any others which they would like help in arranging.

AMA ACTS ON TEXAS RESOLUTIONS

The Texas delegation presented 8 of the 37 resolutions considered by the House of Delegates of the American Medical Association during the clinical session at Boston ending December 2. Of the Texas resolutions, 5 were adopted, 1 was commended to all physicians for thoughtful study, and only 2 were disapproved. It is evident that Texas exerted considerable influence in this national conclave.

A resolution concerning possible amendment of the United States Constitution to revise the procedure in the Electoral College was commended for careful study without any direct action by the House. A request that the AMA sponsor a test case of the doctor draft law, carrying it to the Supreme Court, was disapproved on the basis that such a test case already has been carried through the courts. It might be pointed out parenthetically that the case referred to did not result in a direct decision on the constitutionality of the doctor draft law, which is what the Texas resolution was after. A resolution opposing S. 1323 and thus any federal subsidy to medical education was disapproved by a narrow margin on the contention that the House on two previous occasions had approved a policy of one-time federal grants to medical schools for construction.

Enthusiastically approved were the Texas resolutions commending the Sears-Roebuck Foun-

Season's Greetings

dation for its loan plan for young physicians and opposing further free distribution of Salk poliomyelitis vaccine to any except the medically indigent.

The Texas delegates believe they rendered a real service to American medicine by proposing and having adopted a resolution that would make the House of Delegates, officers, councils, and committees of the AMA feel free to express themselves on any matters involving the environment of medicine and the principles of free enterprise. This will permit official AMA policies to be expressed publicly on matters concerning physicians as citizens, even though they do not have immediate medical implication.

Two resolutions from Texas pertaining to social security amendments were incorporated with similar resolutions in a single final statement which opposed the cash disability benefits of H. R. 7225 and called on the Senate to withhold further action on this bill until a comprehensive review of the entire social security system can be instigated by Congress and its results reported to the American people.

A '56 ISSUE—SOCIAL SECURITY

Every physician who is conscious of his duties as a citizen should be taking an active interest in a timely issue which is important not only to the medical profession, but to the American people generally.

That issue is embodied in the Social Security Amendments of 1955 (H. R. 7225), a bill which proposes the lowering of the social security retirement age for women from 65 to 62; extension of monthly benefits for permanently and totally disabled children beyond the age of 18; expansion of compulsory social security coverage to all self-employed professional groups except physicians; and the raising of social security taxes over and above the increases already scheduled for the next 20 years.

The most controversial section of this bill is the one which would make permanently and totally disabled persons eligible to receive their social security retirement benefits at the age of 50 instead of 65. Such a proposal brings to mind several easy steps from there to socialized medicine—eventual elimination of the age 50 eligibility requirement, cash benefits for dependents of the disabled, temporary disability benefits, direct government payments for hospital or medical costs, and, ultimately, a full-fledged system of government health insurance.

At the most recent meeting of the Texas Medical Association, the House of Delegates adopted several resolutions frowning on further encroachment into local and private affairs by the federal government. These concerned the president's health program, Veterans Administration hospitals, extension of social security, and disability provisions under social security. The latter urged that Congress rescind certain portions of Public Law 761, which are considered definite steps toward socialized medicine. With such resolutions already on the record it behooves members of the Association to follow up with strong opposition to the bill now under consideration.

H. R. 7225 was first rushed through the House Ways and Means Committee without public hearings. It then was passed in the House, by a vote of 372 to 31, under a suspension of the rules which barred amendments and limited debate to 40 minutes. The Senate Finance Committee refused to take hasty action on the bill, and decided to hold extensive public hearings during the second session of the Eighty-Fourth Congress.

The time has come to face up to the question of just what social security should accomplish and just where it should stop. The American Medical Association has urged that the social security issue be taken out of the arena of politics; that there be an objective study of social security; and that the information resulting from such a study be used as the basis for

a sound national decision on this vital issue. It especially protests precipitate action on the complex question of disability without thorough investigation of alternative mechanisms.

This is a policy which deserves the support of every physician, and until a full study has been made, efforts to broaden the scope of social security should be deplored. The AMA at the Boston clinical session called upon physicians everywhere to take the lead in organizing citizens' committees for the study of social security. Physicians acting as community leaders, not just as doctors, can be of primary importance by informing the public about social security measures and by letting their congressmen know their opinions.

91 SCIENTIFIC ARTICLES IN 1955

As the last issue of the JOURNAL for the year is published, it is well to look back over volume 51 to get an idea of what members of the Texas Medical Association may expect scientific-wise in a year's subscription to its publication. During 1955 the TEXAS STATE JOURNAL OF MEDICINE has published 856 pages of reading matter, of which 353 are devoted to 91 scientific articles. Seventy-eight original articles and 13 case reports constitute these scientific pages.

Contrary to the belief by some physicians that papers first must be presented on the annual session program to be published in the JOURNAL is the fact that approximately half the manuscripts in 1955 were direct contributions. To be specific, 46 articles were contributed and 45 presented on the annual session program or on another official Association program.

The JOURNAL advisory board is happy to consider any paper for possible publication. With the beginning of the new year, why not take time to write up that unusual case you recently had—or send in that paper you've had prepared for some time?

The JOURNAL is eager to print articles of wide appeal and would appreciate any suggestions as to subject as well as your manuscript. The editorial office is located in the headquarters building, 1801 North Lamar Boulevard, Austin.

50 Years Ago

Excerpts from the December, 1905, Journal.

"Unethical censors, apathetic public health committee, inaccurate treasurer, dallying delegate, an unparliamentary president, all these may be tolerated until the next election, but no county society can do its destined work with a negligent, disinterested or tactless secretary." So were county societies reminded of their responsibility in electing officers in December, 1905. Further advice noted: "The House of Delegates is the body which governs the Association, and should be made up of the strongest and wisest men from each county society."

Oyster roasts were being held by Williamson, Hays, and Bowie Counties Medical Societies, and a member of Jefferson County Medical Society, Dr. Andrew W. Duke of Center, "while driving a few miles from town, was thrown from his buggy, and rendered unconscious for a short time."

Editorials revealed an interest in public health and legislation. One editorial called for a state board of health, pointing to accurate vital statistics, pure foods and drugs, pollution of waters, communicable diseases, care of the insane, anatomical regulation, unification of local boards of health and their removal from politics, the abolition of "nasty advertisements," regulation of medical colleges, and the practice of medicine, dentistry, veterinary surgery, pharmacy, and embalming as requiring attention from such a board.

Another editorial urged: "It is the duty of the medical profession to be represented in the State Legislature. . . . Public health interests must be advocated on the floor by those most interested and best informed. . . . Selected physicians must run for office, and be encouraged and supported in their race."

Still another editorial counseled: "Patronize the advertisers; advance the esteem in which they hold these pages. . . . Prefer to buy from them, and when so doing do not forget to tell them why. Apply the old receipt for getting along with old maids—'Love them, and tell them so.'"

"The star of psychology again appears upon the horizon," penned Dr. Malone Duggan of Eagle Pass. "Not by its brightness to dim the real achievements of the materialistic regime, but to illuminate our knowledge, and by its light to soften and beautify that obtained through the natural sciences. Thus the more refined nature of woman sheds her benign influence over the opposite sex; and the delicate perfume of the violet softens the heavier odor of the rose."

Changes in the sanitary code relating to disinfection of railroad passenger coaches had been agreed to by the state health officer, Dr. George R. Tabor. "The cuspidors have given great offense to lady passengers. The railroads hereafter will only be required to furnish cuspidors when requested. Another source of complaint was that the disinfectant fluid was often spilled upon the floor, and upon ladies' dresses. The railroads will now be required to keep them clean, but the disinfectant will not be used."

ORIGINAL ARTICLES

Problems in the Diagnosis of Pulmonary Mycoses

DAVID T. SMITH, M. D., D. Litt. (hon.), Durham, North Carolina

PULMONARY mycoses are encountered relatively more frequently each year as the increasing use of the newer antibiotics eliminates as diagnostic problems the common pyogenic infections. In the hospitals and clinics in which there is a clinical interest in and laboratory facilities for the diagnoses of fungus diseases physicians discover a significantly larger number of cases than in those in which this interest and facilities are lacking.

The residue of pulmonary cases which do not respond to antibiotic therapy after seven to ten days of treatment may be (1) tuberculosis, (2) neoplasm, (3) unresolved pneumonia of bacterial origin, or (4) fungus diseases.[1]

GEOGRAPHIC HISTORY

Certain fungus diseases, specifically coccidioidomycosis, histoplasmosis, and blastomycosis, occur frequently in certain geographic areas and rarely, if ever, in other areas (fig. 1). Southwestern Texas is in the endemic zone for coccidioidomycosis whereas northeastern Texas touches the high incidence area for histoplasmosis. Most of Texas seems to be in an endemic area of histoplasmosis of less intensity than that in the mid-Mississippi and Ohio River valleys. Sporadic cases of blastomycosis are seen in central, southern, and southeastern Texas. It is possible, and indeed probable, that small localized areas will be found in the future with a much higher incidence of any one or all three of these mycoses. Localized areas of histoplasmosis of this type have been found recently in northeastern North Carolina[6] and around Lake Champlain[7] and down the Saint Lawrence River (fig. 1).

Epidemics of histoplasmosis following massive exposure to the dried manure from pigeons, chickens, or bats occur most commonly in low nonendemic areas because the nonimmune population is highly susceptible to such massive exposure.[2, 5]

Americans in general and Texans in particular have become great travelers so the history of a patient should include information concerning visits and journeys through known endemic areas. One of our cases of coccidioidomycosis was in a young boy from Florida who rode in a car through a part of New Mexico on a journey to Denver. One of our cases of histoplasmosis was in a newspaper reporter from North Carolina who worked for a few weeks on a newspaper in Tennessee.

Many of the fungi which cause pulmonary mycoses are scattered more or less uniformly over the entire country. These, in the order of frequency found in our clinic, are actinomycosis, moniliasis, cryptococcosis (torulosis), geotrichosis, aspergillosis, nocardiosis, mucormycosis, and sporotrichosis. Seventy-one cases of actinomycosis and 59 cases of blastomycosis were found in the first 250,000 admissions to our hospital.[9] The order of frequency of the mycoses will vary necessarily with the geographic location of the hospital.

CLINICAL FINDINGS

Unfortunately there is no one clinical syndrome or even combination of syndromes which would suggest to the clinician that the patient might have a pulmonary mycosis. The initial symptoms in coccidioidomycosis and histoplasmosis are sometimes acute and suggest a viral or rickettsial infection. With primary coccidioidomycosis the fever is accompanied or followed in about 20 per cent of the patients by the development of erythema nodosum, erythema multiforme, or arthralgia. If, however, the areas of pulmonary infiltration are small and localized, there is usually an absence of clinical symptoms.

Some cases of blastomycosis have an acute onset which suggests a viral or bacterial infection, but more often the disease is insidious. Not infrequently the pulmonary symptoms are minimal or absent, and the roentgenograms suggest a pulmonary neoplasm; many such patients have had a pneumonectomy because of a clinical diagnosis of carcinoma of the lung.

The presence of one or more draining sinuses in the chest wall or in other parts of the body should suggest (1) tuberculosis, (2) actinomycosis, (3) nocardiosis, (4) coccidioidomycosis, (5) blastomycosis,

DR. DAVID T. SMITH, *James B. Duke Professor of Bacteriology and Associate Professor of Medicine, Duke University School of Medicine, was one of the special speakers at the 1955 Annual Session of the Texas Medical Association in Fort Worth. This paper was presented before the Section on Internal Medicine, April 25.*

(6) sporotrichosis, or (7) cryptococcosis (torulosis).

After the acute pyogenic infections of the lungs have been eliminated by a seven to ten day treatment with antibiotics, the patient should be studied *simultaneously* for tuberculosis, neoplasm, unresolved pneumonia of bacterial origin, and fungi.

ROENTGEN-RAY FINDINGS

The miliary calcifications which follow clinical or subclinical primary infections with Histoplasma capsulatum are indeed diagnostic, but such patients are well and need no treatment.

of the same type are seen in the lungs. When the lesion is single and touches the hilum on one side, it is frequently diagnosed incorrectly as a carcinoma of the lung. Enlargement of the hilar lymph nodes, with or without accompanying enlargement of the peripheral nodes or spleen, is a frequent finding in primary coccidioidomycosis, histoplasmosis, and sporotrichosis but not in actinomycosis, nocardiosis, blastomycosis, cryptococcosis, and other pulmonary mycoses. These pulmonary mycoses with hilar enlargement are frequently mistaken for (1) Hodgkin's disease or other lymphomas, (2) primary tuberculosis, (3) neoplasms, (4) berylliosis, (5) sarcoidosis, (6) aleukemic leukemia, or (7) collagen diseases.

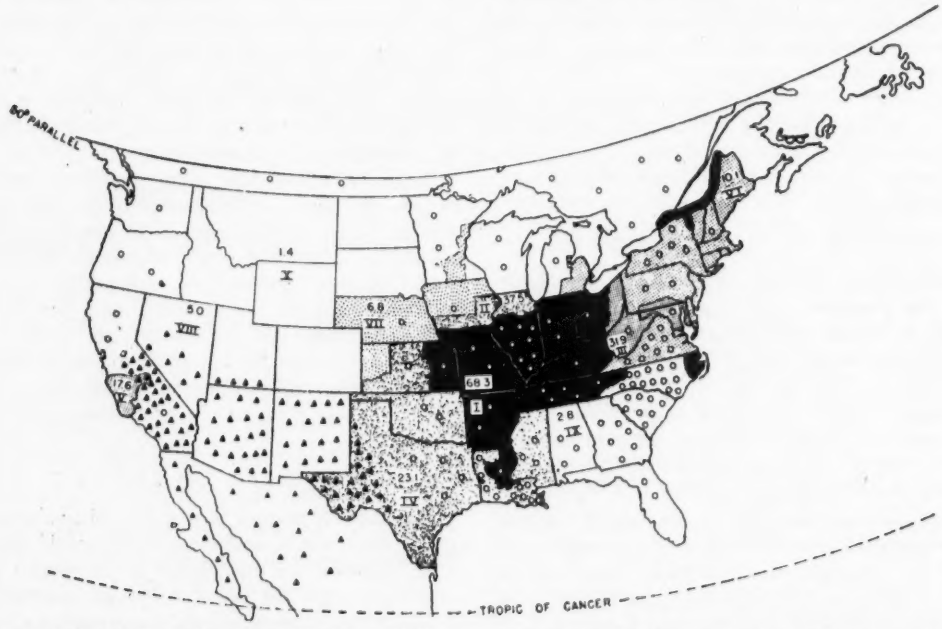

FIG. 1. Geographic distribution of histoplasmosis, coccidioidomycosis, and blastomycosis in the United States. The shaded areas record the percentage of reactors to histoplasmin as found by Palmer.[8] The small focuses in North Carolina[9] and about Lake Champlain[7] and along the Saint Lawrence River were discovered more recently. The circles represent cases of blastomycosis and the triangles, cases of coccidioidomycosis from the literature. (After Smith, D. T.: Diagnosis and Therapy of Mycotic Infections, Bull. New York Acad. Med. 29:778-795 [Oct.] 1953.)

The thin walled cavity is suggestive of the convalescent phase of a primary coccidioidomycosis, but similar thin walled cavities are seen occasionally in pulmonary tuberculosis and geotrichosis. Small diffuse lesions scattered uniformly throughout both lungs occur with some frequency in acute primary coccidioidomycosis and histoplasmosis, but similar lesions are also found in cases of psittacosis, Q fever, and tuberculosis.

Blastomycosis apparently never presents this diffuse bilateral process. In this mycosis the lesions are large, smooth, dense masses with relatively well defined edges. Sometimes there is only one lesion, but more often two or three lesions of different size but

Histoplasmosis alone among the fungi has an endogenous reinfection syndrome which simulates endogenous reinfection tuberculosis.[11] This syndrome occurs in residents of or from endemic areas of histoplasmosis. The characteristic lesion is found in one or both upper lobes of the lungs, is fibrocaseous in character, and usually contains a well defined cavity. In many instances the proof that the patient already has had a primary infection with Histoplasma capsulatum is shown by the presence of miliary calcification in the uninvolved portions of the lungs. These patients always have a positive histoplasmin skin test, but the tuberculin test may or may not be positive. The complement fixation test may or may not be

positive in a significant titer depending upon the extent of the lesion and the degree of its activity. The organism may be found in the cytoplasm of mononuclear cells in the sputum after staining with Giemsa's or Wright's stains or may be grown by the methods suggested later in this article.

The recent interest in "coin" lesions as the curable stage of carcinoma of the lung has resulted in the resection of these lesions by the thousands. Exact figures of the proportion which are malignant varies from area to area. Perhaps one-third are malignancies, one-third tuberculomas, and one-third miscellaneous but predominantly mycotic. Histoplasmosis, followed by coccidioidomycosis, leads the list among the mycotic infections which appear as coin lesions. But coin-like lesions have been found which were apparently caused by Blastomyces dermatitidis, Cryptococcus neoformans, Candida albicans, and Aspergillus fumigatus. It is probable that similar lesions can be caused by Nocardia, Geotrichum, Mucor, and Penicillium genera. In all instances of pulmonary resections cultures should be made on special media for the isolation of fungi as well as sections because several of the fungi cannot be diagnosed with certainty from the form of the organism which appears in the section.[1]

There is suggestive but not conclusive evidence that Aspergillus infections of the lung present two contrasting types of syndromes. The first is a type of migrating pneumonia which may persist for a period of years with minimal damage to the structure of the lung. The organism can be grown repeatedly from the sputum and when made into an autogenous vaccine gives the immediate type of wheal characteristic of the asthma–hay fever type of allergy.[1] The other type begins with one to six or more diffuse localized areas of infiltration which increase in size and become dense, round, sharply circumscribed bodies which resemble marbles, golf balls, or even small oranges. A semilunar area of air may appear near the upper pole of such a mass followed by excavation of the center leaving a rather thick but smooth wall cavity. Similar round lesions may be caused by metastatic tumors, primary tumors, dermoid cysts, or neurofibromas.

SKIN TESTS

The diagnosis of an active fungus infection cannot be established by means of skin tests, but under certain conditions a negative test may be said to eliminate the possibility of the fungus disease in the same manner as a negative tuberculin test may be used to eliminate the possibility of tuberculosis.

Histoplasmin, coccidioidin, blastomycin, and tuberculin skin tests should be used in the study of patients suspected of having mycotic infection. These tests are often useful but also may be misleading. They should be administered and interpreted in a manner analogous to the tuberculin test. Certain points should be emphasized. The skin tests are negative in initial stages of the infection, and some rapidly advancing cases, especially cases of histoplasmosis, progress to death without ever developing a positive skin test. Terminal cases of histoplasmosis, coccidioidomycosis, and blastomycosis, like terminal cases of tuberculosis, frequently become anergic and give negative skin reactions. A positive skin test, like a tuberculin test, means present or past infection.

There seems to be a small amount of a common antigen in Coccidioides immitis, Histoplasma capsulatum, and Blastomyces dermatitidis, and this results in some cross reaction in the skin tests. For this reason histoplasmin, coccidioidin, and blastomycin always should be administered simultaneously regardless of which mycosis is suspected. Only those patients with excessive sensitivity to coccidioidin, for example those positive to 1:10,000 dilution, give cross reaction with histoplasmin or blastomycin. Cross reaction between histoplasmin and blastomycin are much more common, with the major cross being between histoplasmin and blastomycin. In my experience, persons with marked positive skin tests to histoplasmin usually give reactions to blastomycin or standard Blastomyces vaccine which are about 25 per cent as large as the specific reaction to histoplasmin. Such an individual may give a larger reaction to blastomycin than some patients with proven blastomycosis. Patients with large reactions to blastomycin may give smaller reactions to histoplasmin. The specific test is always larger when the three antigens are given simultaneously and usually no difficulty is encountered in interpretation.

An infection with Coccidioides immitis or Histoplasma capsulatum gives as long lasting a skin test as does infection with the tubercle bacillus; consequently, a negative skin test in a patient in reasonably good physical condition can be accepted as eliminating the possibility of these particular mycoses. Unfortunately the blastomycin skin test cannot be accepted with such confidence. At least 25 per cent of our patients with early but proven blastomycosis had negative tests when admitted to the hospital. A positive skin test usually indicates an active infection and certainly should stimulate a careful study by culture, biopsy, or complement fixation, but of and by itself it does not establish the diagnosis. I have seen 3 healthy medical students with positive skin tests to blastomycin and 10 patients picked up in routine testing in whom evidence of an active infection was never found.

A nocardin which gives positive skin tests in some cases of nocardiosis has been prepared in the labora-

tory. There is some degree of cross reactions with tuberculin. This antigen has not been evaluated and is not available commercially.

Autogenous heat-killed vaccines can be prepared from the other fungi for use as skin test antigen. It is my impression that they should be interpreted as showing the presence or absence of hypersensitivity and not the presence or absence of mycotic infection.

SEROLOGIC TESTS

Precipitin tests are useful in detecting the presence of early and mild infections with Coccidioides immitis and Histoplasma capsulatum. In progressive disease the precipitin titers decline and finally disappear although the complement fixation results may be steadily rising. There is no precipitin test for North American or South American blastomycosis.

The complement fixation test for blastomycosis was introduced by Martin in 1933. The antigen was prepared from the pulverized bodies of the tissue phase of Blastomyces dermatitidis. C. E. Smith of California used coccidioidin for the antigen and perfected a complement fixation test for coccidioidomycosis. The antigen used in the complement fixation test for histoplasmosis may be histoplasmin or the yeast phase of the organism.

Complement fixing antibodies are not stimulated by subclinical infections or even mild clinical infections or, if present, are not in amounts sufficiently high to be detected by the methods now in use. Apparently a rather marked stimulation of the tissues is necessary to induce demonstrable amounts of complement fixing antibodies. A positive complement fixation test should be interpreted as evidence of active infection, and unlike the skin test, the titer continues to rise in terminal cases. Conversely the titer declines as the patient improves and disappears after recovery.

There is little, if any, cross complement fixation between the serums of patients with coccidioidomycosis and the Histoplasma and Blastomyces antigens. There is, however, a marked cross reaction between the serums of patients with active histoplasmosis and the Blastomyces antigen. The cross reactions in the reverse direction are minimal. A patient with active histoplasmosis may give a higher titer of fixation with a Blastomyces antigen than a proven case of blastomycosis may give with the same antigen. For these reasons serums should be run in parallel against both Histoplasma and Blastomyces antigens. When this is done, difficulties are rarely encountered in interpretation.

A significant titer of complement fixing antibodies is almost diagnostic of active generalized coccidioidomycosis, histoplasmosis, or blastomycosis but always should be supplemented by a vigorous search by culture and biopsy for the specific organism. The term "significant titer" is important because the numerical titer varies with the several antigens and in different laboratories, so a numerical titer which is significant from one laboratory may not be significant from a different laboratory.

DIRECT EXAMINATION

The direct examination is the most rapid and economical method available for diagnosis; however, a degree of skill and experience comparable to that of a parasitologist is required to obtain reliable results. There are many artefacts in pus, tissue extracts, and sputum which may be mistaken for fungi. The most confusing artefacts are the so-called myelin granules of the sputum which have well defined cell walls and vary greatly in size so that one finds not only pseudo yeast and blast cells but pseudo budding as well. When typical fungus organisms are present in abundance, and this happens in pus from lesions and sometimes in the sputum, the diagnosis by direct examination is rapid and conclusive. In general, however, direct examination is not as reliable as cultures. Many specimens negative for fungi by direct examination will yield a heavy growth when planted on suitable media.

Direct examination is particularly valuable in the rapid diagnosis of actinomycosis and nocardiosis. The typical sulfur granule in the former is diagnostic if the granule is smeared and, after staining by Gram's method, is found to be made up of thin branching gram-positive filaments. The unstained granule alone is not entirely reliable since Staphylococci may produce similar granules in the chronic infliction known as Staphylococci actinophytosis or botryomycosis.

Conant has found an efficient method of detecting sulfur granules in pus from draining sinuses. He reported that he examines the inner layers of the gauze dressing under the lower power of the microscope and finds that the sulfur granules are caught in the meshes of the gauze like fish in a seine.[1]

Most pathogenic Nocardia are partially acid-fast and may be recognized by the presence of acid-fast rods or filaments which show side branches when stained by the usual acid-fast techniques. However, great care must be exercised in the decolorization process with acid alcohol. All red stain must be washed out of the cells and cellular debris in the background, but if it is continued beyond that point, the Nocardia will be decolorized also.

BIOPSY

The biopsy is a valuable procedure in the diagnosis of fungus diseases provided the tissue is cultured as well as sectioned. The type of tissue reaction alone does not permit a definite diagnosis, but when typi-

cal organisms are present, the diagnosis is rapid and as reliable as by culture. The new periodic acid-staining technique of McManus is definitely superior to staining by the hematoxylin-eosin or Giemsa's method. Occasionally, organisms are found in tissues by the McManus method when cultures from the same tissue fail to yield a growth, but more often the reverse is true with the cultures being positive and the sections negative. This is almost always true of tissues from patients with sporotrichosis, as noted previously.

A new staining procedure, which may be of considerable value, was introduced in 1953 by Gridley.[3] By this technique dead Histoplasma yeast cells in caseous material, which do not stain by other methods, appear as "ghosts."

CULTURES

Cultures are slower for the diagnosis of fungus diseases than direct examination and biopsy methods but in general are more reliable and require less diagnostic skill on the part of the laboratory staff. Even when pure cultures are not readily identified, they can be mailed to a diagnostic center for a final opinion or diagnosis. It is not practical to ship original materials of pus, sputum, or tissue to diagnostic centers for culture since the cells degenerate and saprophytic bacteria completely overgrow and eliminate the pathogenic fungi.

Actinomyces bovis is anaerobic and requires a rich medium for growth. Fortunately all the other fungi which cause systemic infections in man are aerobic and will grow on a modified Sabouraud's medium, which is a simple peptone agar of 5 to 6 hydrogen ion concentration which contains 1 per cent dextrose. The rate of growth varies with the type of fungus. Monilia, Aspergillus, Penicillium, Mucor, and Geotrichum grow rapidly with the production of large colonies in four to five days. Isolated colonies should be picked for subculture, but the original tubes should be kept for at least 30 days. Cryptococcus neoformans and Sporotrichum schenckii may appear after 10 to 14 days and Histoplasma capsulatum, Coccidioides immitis, and Blastomyces dermatitidis after 20 days. It is important that the tubes showing an early growth on Monilia are not discarded. I have found Monilia as a secondary invader in cases of blastomycosis, cryptococcosis, histoplasmosis, and coccidioidomycosis. The saprophytic form of Histoplasma capsulatum, Coccidioides immitis, and Blastomyces dermatitidis gives a growth which resembles a tuft of white cotton. Before the development of characteristic spores these fungi cannot be distinguished from each other or from certain nonpathogenic fungi which may appear on the medium.

The yeastlike tissue phase of Blastomyces dermatitidis grows readily in seven to ten days when inoculated on blood agar and incubated at 37 C., and the tissue phase of Sporotrichum schenckii grows well on the cystine medium designed for the cultivation of Pasteurella tularensis. Nocardia cultures grow equally well on dextrose agar, blood agar, or the special media used for growing Mycobacterium tuberculosis, but unlike tubercle bacilli they are destroyed by the various types of concentration procedures commonly used to eliminate contaminants from tuberculous material. The tissue phase of Histoplasma capsulatum may grow on blood agar or in special fluid media when incubated at 37 C. Sometimes on these media the growth starts at the tissue phase and changes over to the saprophytic moldlike phase even when growing at 37 C. The spherule endospore tissue phase of Coccidioides immitis has been grown occasionally on artificial media, but most stains grow only in the saprophytic form even on rich media at 37 C. However, an abundant growth of the spherule endospore form can be obtained by inoculating the material into the yolk sac of embryonated eggs.

Various modifications of the basic media have been advocated with the object of making the media more selective for fungi. In Littman's oxgall modification, gentian violet is added to suppress bacterial growth. This modification is definitely superior to the usual Sabouraud's medium for the isolation of the dermatophytes from skin, hair, and nails and for the isolation of fungi from stools. It has definite limitations, however, since the gentian violet inhibits the growth of Actinomyces bovis, Nocardia asteroides, and Candida albicans and partially inhibits the growth of Histoplasma capsulatum. The addition of 100 units of penicillin and 100 micrograms of streptomycin to blood agar medium efficiently eliminates bacteria without affecting the yeastlike and moldlike fungi. But the antibiotics prevent the growth of Actinomyces bovis and Nocardia asteroides and related species of Nocardia.

Actinomyces bovis is extremely difficult to isolate from draining sinuses because of the more rapid growth of the secondary invaders. Histoplasma capsulatum is often difficult to isolate from sputum and may be overgrown and smothered by pyogenic bacteria unless penicillin and streptomycin are added to the blood agar medium as suggested previously. Sputum from patients suspected of having histoplasmosis should be planted promptly after it is expectorated. The organism may fail to grow if the specimen is left on the ward or in the laboratory two to three hours after it is collected.[4]

THERAPY

The therapy for mycotic infections of the lung

cannot be discussed in this article but can be found in other publications.[1, 10]

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RECENT EXPERIENCES WITH HISTOPLASMOSIS

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IN 1951 Hansen and Beene[8] reported the first case of histoplasmosis in Texas, occurring in an infant patient at John Sealy Hospital. Since that time there have been reported 5 additional active cases in the state,[9, 11, 12] 3 of which were also from this hospital. Including these 4 patients there has been a total of 11 cases at this institution, and they form the subject material for this report. In addition, 4 other doubtful cases to be reported elsewhere will be briefly discussed.

It is not within the scope of our paper to give a detailed discussion of all features of histoplasmosis. In recent years comprehensive reviews have appeared in several major journals concerning the mycology and epidemiology of the disease.[5, 10, 13, 18]

The distribution of histoplasmosis is shown in figure 1. The endemic area is in the central portion of the United States, where, for instance, Missouri has 71 per cent positive reactors and 34 reported cases. Texas lies on the perimeter of this focus with 28 per cent reactors and 5 reported cases. As there have been no statewide skin testing programs in Texas, the Student Health Service of the University of Texas Medical Branch initiated a survey in September of 1954 on all entering medical and nursing students. It is premature to draw conclusions at this time, but a superficial analysis suggests that the highest incidence of positive reactors is in the central and eastern portions of the state as well as along the Gulf Coast. There has been reported a high local incidence about Fort Hood, where 2,700 children between the ages of 6 and 20 years were tested. The 18 to 19 year age group showed a 40 per cent reactivity.[6]

From the Department of Internal Medicine, University of Texas Medical Branch.

Read before the Section on Internal Medicine, Texas Medical Association, Annual Session, Fort Worth, April 25, 1955.

Figure 2 shows the geographical distribution of our 15 cases. The parallelism in distribution of histoplasmin sensitivity and clinically active histoplasmosis has been shown before. Although skin-test data from Texas are limited and the number of cases is small, this same relationship is suggested, in that all skin-test data and all reported cases originate in the eastern half of the state from the Red River border in the north to the Gulf.

The disease is caused by Histoplasma capsulatum, which is unique among the fungi as it exists in two forms—the mycelial and the yeastlike phases. However, only the yeast form has ever been found or isolated from the tissues. On the other hand it is only the mycelial form with its chlamydospores which is thought to be infective.

Clinical and experimental evidence indicates that the route of infection is usually through the respiratory tract.[10] Once he is infected, the patient's disease may follow many different courses. The majority are never aware of any serious illness and recover spontaneously, and the only stigmas they carry are a positive reaction to histoplasmin and possibly some evidence of pulmonary calcification.

Those who have clinical disease may show protean manifestations. Because the initial infection is respiratory, most will have had symptoms referable to this system, although it is frequently impossible to obtain such a history. The chest roentgenogram may demonstrate fine miliary infiltrations, dense confluent areas, cavitation, hilar adenopathy, or the etiologic enigma, the "coin lesion."[7, 10, 13] However, in some cases the chest findings either are minimal or may suggest tuberculosis so that the clinician's attention may not be focused to the possibility of histoplasmosis.

From the chest, the disease may disseminate, but

this in itself may not necessarily indicate a grave prognosis. In this stage hepatosplenomegaly and adenopathy (usually visceral, but sometimes peripheral) may occur. Dissemination may lead to an adrenocortical insufficiency due to the destruction of the adrenal glands.[3, 4] A variety of local lesions have been described. These include involvement of the skin, mucous membranes, tongue, larynx, gastrointestinal tract, penis, and anus, as well as endocarditis and meningitis.[2, 3, 4, 7, 13, 15] The severity of illness

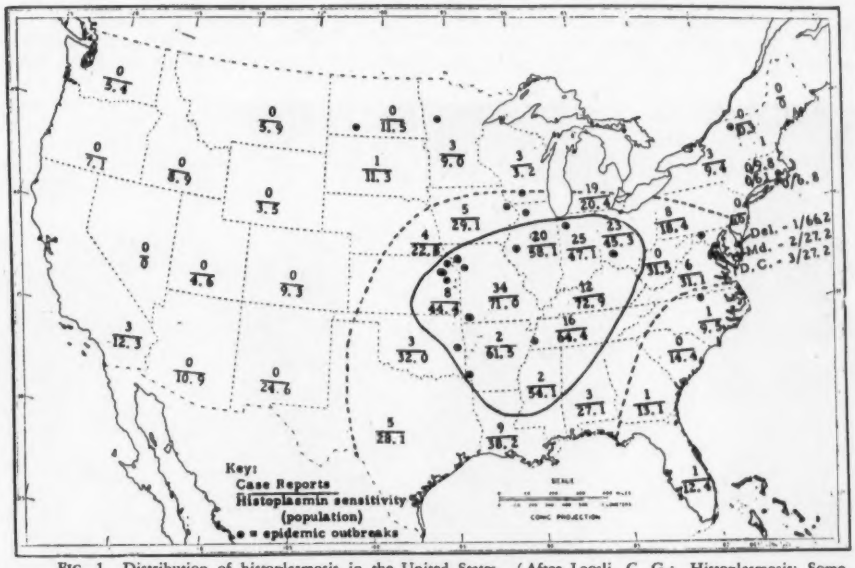

FIG. 1. Distribution of histoplasmosis in the United States. (After Loosli, C. G.: Histoplasmosis; Some Clinical Epidemiological and Laboratory Aspects, M. Clin. North America 171-199 [Jan.] 1955.)

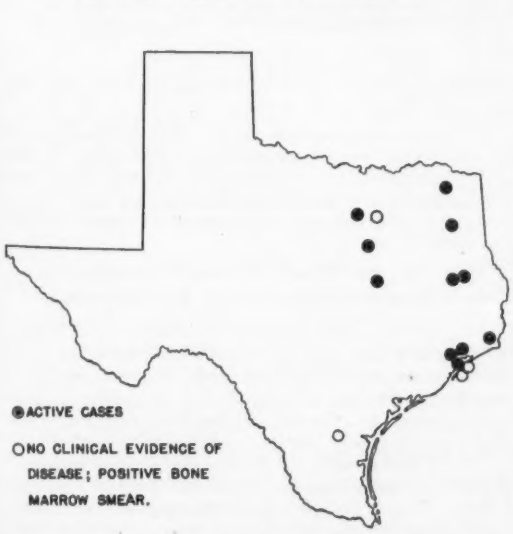
DISTRIBUTION OF CASES OF HISTOPLASMOSIS
SEEN IN JOHN SEALY HOSPITAL 1949-1954
●ACTIVE CASES
○NO CLINICAL EVIDENCE OF DISEASE; POSITIVE BONE MARROW SMEAR.

FIG. 2. The geographical distribution of 15 cases of histoplasmosis seen during the 1949-1954 period at John Sealy Hospital.

is extremely variable. Those with pulmonary involvement alone almost invariably recover. In the past when dissemination occurred the prognosis was considered fatal; however, an appreciable number of cases with dissemination and ultimate recovery have been reported.[1, 3] We have demonstrated Histoplasma in bone marrow specimens of patients not clinically ill with histoplasmosis.

As yet no drug has been found highly effective in the treatment of histoplasmosis. Some critically ill patients as well as those with local involvement seem to benefit from chemotherapy, especially with the use of ethyl vanillate.[1, 3, 14, 17, 19] Yet others progress to a fatal outcome in spite of treatment. In some cases the toxic reactions to therapy, particularly the nausea and vomiting associated with ethyl vanillate, may so debilitate the patient as to hasten the progression of his disease.

The following proven cases from our series illustrate examples of clinical histoplasmosis.

CASE REPORTS

CASE 1.—T. G., a 40 year old man from Baytown (previously reported by Middleton[11]), six weeks prior to admission had the onset of fever, weight loss, and a cough productive of purulent sputum. The clinical impression of the referring physician was "possible tuberculosis." His roent-

genogram showed bilateral pneumonic infiltration. A roentgenogram taken at our hospital 15 months previously showed only an old calcified Ghon lesion on the left (fig. 3).

Seventeen negative acid fast studies on his sputum and 3 positive Histoplasma cultures from the same source were reported. The skin histoplasmin test and his marrow biopsy were negative. It is noteworthy that his three children had positive histoplasmin tests. Treatment was begun with ethyl vanillate, 4 Gm. a day in divided doses, and the dosage was gradually increased to 20 Gm. a day. For the first 20 days of therapy he was extremely ill and demonstrated a progressive increase in the size of his chest lesions. On the twenty-fourth day, at which time he was being given 16 Gm. of the drug daily, he was afebrile and remained so for the remaining 17 hospital days. At that time he left the hospital against medical advice and without further therapy. He was seen once in the chest clinic after dismissal and was much improved. Subsequent films showed clearing, although marked fibrosis had occurred.

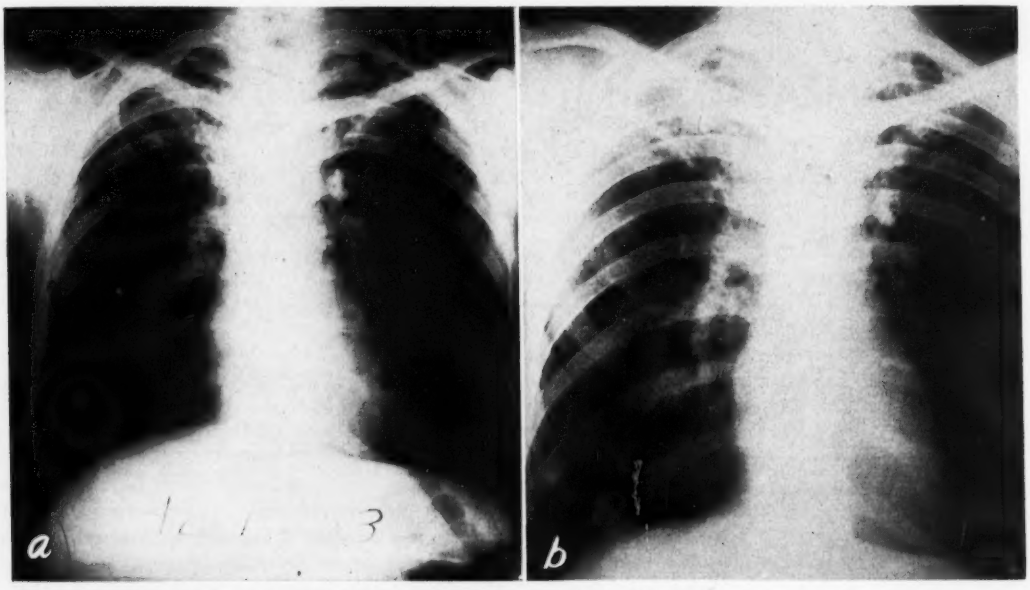

FIG. 3. Case 1. a. Chest roentgenogram made early in the course of the patient's disease showing infiltration behind the right third rib anteriorly and in both apices. A film 15 months before onset of the disease showed only the calcified hilar in the left hilum and the Ghon lesion in the left lower lobe.

b. Chest roentgenogram four months later showing the progression of the disease. Subsequent films showed some clearing and residual fibrosis.

This case represents the acute pulmonary form of histoplasmosis and one of the more common radiologic pictures. It is likely that the patient has recovered or may recover from the illness, although the residual scarring may ultimately lead to pulmonary or ventilatory insufficiency. The efficacy of ethyl vanillate is difficult to assess, but fever and other symptoms did subside during its administration.

CASE 2.—D. S., a 59 year old white man from Perry, Falls County, noted onset of superficial ulcerations at the nares, corner of the mouth, and prepuce eight months prior to admission. Associated symptoms included a weight loss of 25 pounds, weakness, dyspnea, and chest pain. Diabetes had been diagnosed and was adequately controlled. On admission he showed only the penile lesion and hepatomegaly. After three weeks' hospitalization an ulcerated fissure developed at one corner of his month.

His chest film showed a fine infiltration in the left upper lobe, calcified hilar shadows, and a fine network of fibrosis bilaterally. Liver biopsy was reported as "granulomatous hepatitis." The Histoplasma were seen on the biopsy material (fig. 4a) and smear of the lesions of the mouth. His marrow was negative on direct examination but positive on culture. Culture of the mouth lesion was likewise positive. His skin test was negative and the complement-fixation test was 4 plus in a 1:16 dilution.

The patient was unable to tolerate the ethyl vanillate because of nausea and vomiting and was dismissed to the care of his local physician. Correspondence relates that he had a progressively downhill course and died ten months later with gangrene of his leg, presumably due to arteriosclerosis and diabetes.

This case exemplifies disseminated histoplasmosis with involvement of the skin, lungs, and liver.

CASE 3.—W. J., a 50 year old white man from Fort Worth, following exposure to dense dust in a pipe warehouse, nine months prior to entering John Sealy developed an acute respiratory infection which he termed "pneumonia." Following partial recovery he continued to experience low grade fever, lassitude, anorexia, and weight loss. Physically he showed wasting and slight hepatomegaly but no lymphadenopathy or splenomegaly. His chest roentgen-ray was normal. He was studied exhaustively, and we found only slightly impaired liver function and mild cirrhosis on liver biopsy and a 1 plus histoplasmin skin test. Numerous cultures and animal inoculations of blood, urine, and gastric

washings were all negative. The referring physician had reported acid-fast bacilli cultured from the urine; and after exhaustive study failed to yield a diagnosis, it was decided empirically to give the patient a course of antituberculous therapy, and he was dismissed on a regimen of streptomycin and para-aminosalicylic acid. He was readmitted to the hospital two months later in a markedly emaciated state. His studies were repeated and showed essentially the same findings plus splenomegaly. A bone marrow biopsy was negative on direct examination for Histoplasma. The patient developed a progressive adrenocortical insufficiency and in spite of treatment died eight months following his first admission. An autopsy showed disseminated histoplasmosis with destruction of the adrenals and involvement of most of the organs including the pituitary, heart, and pancreas (fig. 4b).

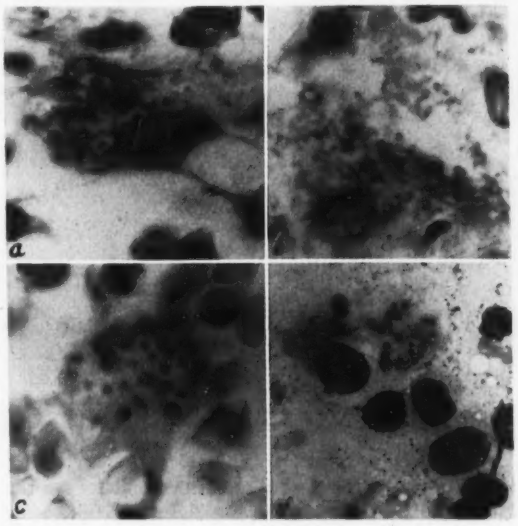

FIG. 4a. Case 2. Histoplasma capsulatum is seen in an intracellular clump from a lip biopsy by means of a hematoxylin–eosin stain.

b. Case 3. A large collection of Histoplasma capsulatum is noted in the kidney from autopsy material with a hematoxylin–eosin stain.

c. Case 4. Intracellular Histoplasma capsulatum is found in the spleen at autopsy with a hematoxylin–eosin stained specimen.

d. Case 4. Organisms resembling Histoplasma capsulatum are obvious from a bone marrow smear with a Kingsley stain (culture of bone marrow later reported positive). It may be noticed that the central body of the organism appears larger because the shrinkage that occurred with fixation of the other tissues had not taken place.

This case was not diagnosed before death. The histoplasmin skin test was applied the second day of the first admission as a routine in the work-up of a fever of undetermined etiology. Because the histoplasmin test is found positive so frequently, we were not quick to suspect histoplasmosis. Although the patient was subjected to an extremely complete study on two admissions, failure to perform blood and bone marrow cultures specifically for fungi resulted in failure to diagnose this case.

CASE 4.—C. A. W., 6 month old white girl from Itasca (previously reported by Hansen and Beene[6]), a month prior to admission had the onset of an infection of the upper respiratory tract. Shortly her cough became intractable, and because of hepatosplenomegaly, anemia, and leukopenia she was referred to us with a tentative diagnosis of a blood dyscrasia. The histoplasmin test was positive. Bone marrow smear and culture were positive for Histoplasma. She was treated with penicillin, sulfadiazine, and Aureomycin but continued to have fever, frequent hemoptysis, and anorexia and died 14 days after admission. The autopsy showed Histoplasma in the lungs, liver, spleen, lymph nodes, thymus, adrenals, kidney, colon, and heart (fig. 4c and d).

CASE 5.—H. W., a 3 year old Negro boy from Kilgore, was admitted with a history of abdominal pain intermittently for six months and of abdominal swelling, fever, and weight loss of one month duration. Results of examination of the chest were not remarkable, but the liver was 3 cm. below the right costal margin and the spleen was felt 6 cm. below the left costal margin. His course in the hospital was characterized by daily spikes of fever as high as 105 F. and repeated episodes of melena. In the second week hematemesis occurred. Peripheral blood study showed a marked normocytic anemia and transitory leukocytosis with a marked left shift. Bone marrow examination showed a marked stimulation of all elements. Histoplasma capsulatum was seen in the smears of peripheral blood and in the bone marrow.

It was planned to treat this child with ethyl vanillate, but before the drug arrived the child had died, despite vigorous supportive therapy, after 23 days of hospitalization.

These last 2 cases are classical illustrations of rapid dissemination and death in an infant and child with widespread disease. The typical features of anemia, fever, and hepatosplenomegaly were present in both children. Case 5 showed the repeated gastrointestinal hemorrhage which often complicates histoplasmosis in children and the presence of organisms in the peripheral blood which is rarely demonstrated.

CASE 6.—M. MacC., a 64 year old white man from Beaumont (previously reported by Middleton[11]), was referred to our outpatient clinic as a "burned out" case of tuberculosis with bilateral bronchiectasis of the upper lobes. His tuberculin test was negative, and the histoplasmin determination was 1 plus. Sputum cultures for acid-fast bacilli were repeatedly negative, but several specimens were positive for Histoplasma capsulatum. The patient never returned for further studies and therapy and has been lost for follow-up.

CASE 7.—A. H., a 59 year old white man from Texas City, two weeks before admission developed a left anterior chest pain with fever and productive cough. His chest roentgenogram was consistent with far advanced tuberculosis (fig. 5). Skin tests with old tuberculin in a 1:10 dilution and the histoplasmin test were negative. Only 1 sputum specimen out of several was positive for acid-fast bacilli on smear and culture, and 3 fungus cultures were negative. Bilateral scalene lymph node biopsy showed chronic granulomatous inflammation, but special stains for acid-fast bacilli and fungi failed to reveal organisms. He was placed on dihydrostreptomycin and para-aminosalicylic acid (PAS), and several weeks later isoniazid was substituted for PAS because of intolerance of the latter. On this antituberculous regimen his disease progressed, and his attending physician decided the patient did not have tuberculosis but could not confirm his clinical impression of histoplasmosis. The patient was dismissed from the hospital and died a short time later at his home. Subsequently a complement-fixation test for histoplasmosis which had been done was reported posi-

tive in a 1:512 dilution, and 2 of 4 sputum cultures were positive for Histoplasma capsulatum.

These 2 cases illustrate the frequency with which the chronic pulmonary form of histoplasmosis may be confused with tuberculosis and should alert the clinician to suspect this disease when acid-fast organisms cannot be found or when the patient fails to respond to conventional antituberculous therapy.

Second, we resorted to serologic study in only a few cases. Of the two tests the complement-fixation is probably superior to the precipitin test from the standpoint of diagnostic and prognostic implications. It is said that the complement-fixation level begins to rise about the second or third week of the infection when a good immune response is present, and it remains up until the infection is on the wane or becomes quiescent or until the infection overwhelms the body immune responses. The 8 cases tested generally followed this pattern of correlation between the chronologic phase of the disease and the complement-fixation.

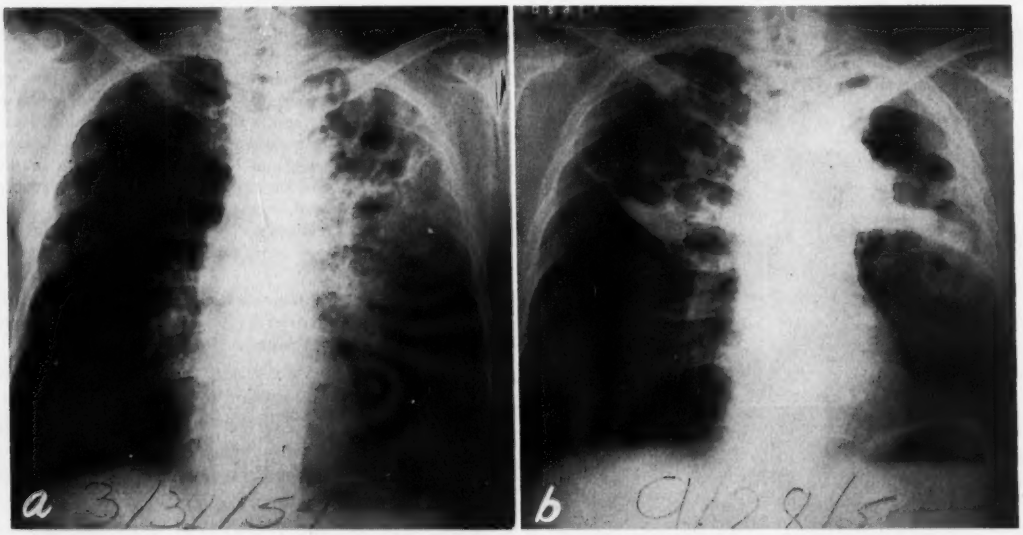

FIG. 5. Case 7. a. Admission film showing extensive infiltration in the left upper and right lower lobes. Cavitation is present in the left upper lobe.

b. Chest roentgenogram six months later showing involvement of all lobes and destruction of both upper lobes with multiple large cavities.

DISCUSSION

Our cases were divided into proven, presumptive, and doubtful groups. Our criteria for the proven cases required the clinical features of the disease and either positive cultures or adequate histologic evidence of histoplasmosis. The presumptive group possessed all of the clinical features of active disease but lacked cultural and tissue proof. The doubtful group, of which there were 4 patients, all had bone marrow examinations in which organisms indistinguishable from Histoplasma capsulatum were found but lacked any clinical evidence of active histoplasmosis.

These cases are summarized in table 1. When one examines this table there are several features which stand out. First, among the 6 proven cases in which skin testing with histoplasmin was done, only 2 were positive. This anergy in seriously ill patients has been recognized before, not only in histoplasmosis but in other fungus diseases and tuberculosis. Therefore, where clinical suspicion is high a negative skin test should by no means deter one from further diagnostic pursuits.

Third, in all the proven cases in which attempts were made to culture the organisms, the cultures were positive for histoplasmin, even though the bone marrow smears had been negative as in cases 1 and 2.

Last, and perhaps the most interesting diagnostic facet, is the problem of bone marrow smears. These were positive in 2 of the 5 proven cases in which the biopsy was performed, and they supported diagnosis in 2 cases of the presumptive group which had clinical features of histoplasmosis as well.

In all of the doubtful group in the bone marrow smear intracellular organisms resembling Histoplasma capsulatum were seen. In all 4 of these the marrow examinations were performed for hematologic indications, and in none did we find clinical evidence to support a diagnosis of active histoplasmosis. Another case (case 12) had 1 questionable and 1 negative complement-fixation and a positive precipitin test; and another patient (case 13), who had lived in Kansas

City as well as along the Gulf Coast, had a positive skin test and precipitin test and 1 positive and 1 negative complement-fixation result. These observations lead us to believe that the organism may exist for years disseminated throughout the body in a dormant state and not cause clinical disease. Support of this theory is furnished in a recent report by Schwarz and others.[16] Their report was a study of calcific densities in the spleen and included 120 unselected cases from Cincinnati. Forty of these cases had so-called "typical" calcific foci, of which 19 had demonstrable Histoplasma capsulatum within the foci.

Five of our cases received specific treatment with ethyl vanillate. Cases 1, 7, and 8 showed a good response to therapy with this drug, and a cure is considered to have been accomplished in patient 8. Patients 1 and 7 discontinued the medication against medical advice. One has died presumably from histoplasmosis; the other probably has undergone spontaneous arrest. Case 2 was unable to tolerate the associated nausea and vomiting, and the medication was discontinued. In case 13 the indications for ethyl vanillate were not good; the patient tolerated the drug fairly well, and no change in her clinical picture was noted. The effectiveness of ethyl vanillate leaves much to be desired, but much work is being done with chemotherapeutic agents that hold some promise. Perhaps the only real cure that can be effected is in cases with localized lesions, as on the skin or in the lungs, which can be surgically excised.

TABLE 1.—*Summary of 15 Proven, Presumptive, and Doubtful Cases of Histoplasmosis Seen at John Sealy Hospital, 1949-1954.*

Patient—Age (yr.), Race & Sex	Skin Test	Complement-Fixation Test	Precipitin Test	Culture	Bone Marrow	Pathology
PROVEN CASES						
1—39, WM	Neg.			Pos.	Neg.	No tissue.
2—59, WM	Neg.	1:32		Pos.	Pos.	Organisms seen in lip biopsy.
3—50, WM	Pos.				Neg.	Autopsy: disseminated.
4—½, WF	Neg.			Pos.	Pos.	Autopsy: disseminated.
5— 3, NM					Pos.	Organisms seen in white blood cells on blood smear. No autopsy.
6—64, WM	Pos.	1:256		Pos.		No tissue.
7—59, WM	Neg.	1:512		Pos.		Scalene node with chronic granuloma.
PRESUMPTIVE CASES						
8—33, NF	Neg.	2 Neg.	Pos.	Neg.	Pos.	No tissue.
9— 2, WM		2 Neg.		Neg.	Pos.	No tissue.
10— 5, WF	Pos.					No tissue.
11—13, WM	Pos.	1:640				No tissue.
DOUBTFUL CASES						
12—63, WF		? & Neg.	Pos.		Pos.	No organisms seen in spleen (surgical).
13—34, WF	Pos.	+ & Neg.	Pos.	Neg.	Pos.	No organisms seen or cultured from sinus tract biopsy.
14—20, WM		Neg.		Neg.	Pos.	No tissue.
15—51, NF					Pos.	Autopsy showed no evidence of active disease.

SUMMARY AND CONCLUSIONS

Skin tests data and clinical experience indicate that histoplasmosis is fairly common in the eastern half of Texas but that the disease rarely becomes clinically evident.

Seven cases of clinical histoplasmosis verified by laboratory studies have been described. In addition a group of 4 "presumptive" cases have been described in which satisfactory bacteriologic or tissue confirmation was not available but in which the clinical diagnosis seemed likely, making a total of 13 cases from Texas.

The reliability of bone marrow smear as the sole confirmation of the diagnosis of histoplasmosis is questioned because of observations on 4 cases in which organisms resembling Histoplasma capsulatum were found unexpectedly in the marrow specimens and in which the clinical picture was not consistent with a diagnosis of active histoplasmosis.

It is suggested that Histoplasma capsulatum occasionally may exist disseminated throughout the body for years without causing any clinical disease.

ACKNOWLEDGMENT

We are indebted to Dr. J. W. Middleton for permission to include patients previously reported by him in this report; to Dr. A. N. Longfield, 1 of whose patients was reported by Middleton; to Dr. C. T. Stone, Sr., who permitted inclusion of 1 of his patients; and to Dr. A. E. Hansen in the Department of Pediatrics, who permitted us to report 4 pediatric cases of histoplasmosis so as to present a complete report from the University of Texas Hospitals.

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ABSTRACT OF DISCUSSION

DR. ALVIS E. GREER, Houston: Since histoplasmosis is a disease of the reticuloendothelial system, it is sometimes referred to as reticuloendothelial cytomycosis. The clinical symptoms vary widely. Four types have been observed: a picture (1) with a septic temperature curve, anemia, leukopenia, enlarged liver and spleen, and simulating kala-azar; (2) with predominating lymphadenopathy, similar to leukemia, aplastic anemia, Hodgkin's disease, or lymphosarcoma; (3) with pulmonary symptoms predominating, often superimposed or complicated by tuberculosis; and (4) with a primary, small cutaneous lesion, which may develop into a generalized ulcerative skin disease.

There is no doubt that a benign histoplasmosis exists. The problem of the existence of a benign type of histoplasmosis depends upon a specific relationship between a positive intradermal reaction and the infection and a similar type of specificity as is recognized for other intradermal reactions, such as testing with coccidioidin and tuberculin. In persons with late disseminated histoplasmosis the histoplasmin test may be negative, although the histoplasmin complement test may be positive. In referring to the complement-fixation test, it is well to state that the appearance of an increasing titer possibly indicates dissemination of histoplasmosis, similar to the relationship of the appearance of the rising titer in serologic tests for coccidioidomycosis.

The primary phase of the pulmonary infection, and 95 per cent of the cases are asymptomatic, may progress into a chronic pulmonary disease or a disseminated infection or may heal largely without significant damage. The diagnosis in 95 per cent of the pulmonary cases is ordinarily made retrospectively on the basis of multiple pulmonary calcifications, a positive histoplasmin reaction, and a negative tuberculin reaction. It has been my experience that false positive reactions to histoplasmin occur with two other fungi—Coccidioides and Blastomyces. Christie and Peterson* have suggested that since the causative organism of histoplasmosis appears to flourish only in the yeast form in infected animals and man, an antigen extract of this phase might be expected to give more satisfactory results. In essence, I might say, in the diagnosis of the subclinical form of histoplasmosis a positive histoplasmin skin test is often of little clinical value, whereas a negative test may be helpful.

Many cases of histoplasmosis may be difficult to differentiate from pulmonary tuberculosis; especially is this true when both the tuberculin and the histoplasmin tests are positive. It is my opinion that the chest roentgenogram is important in differentiating histoplasmosis from tuberculosis and other mycoses. Gross hilar adenopathy is associated with disseminated nodular pulmonary lesions in histoplasmosis, and the mediastinal changes are distinctive in the considerable degree of glandular enlargement. The finding of multiple foci in the parenchymal lung tissue, as noted by Furcolow,[7] most of which are discrete but coalesce to form raspberry-like opacities, is significant. Calcification, if present, have a halo-like zone seeming to surround the calcifications, which is now believed to be a part of the calcification itself. I would like to stress that gross hilar adenopathy and halo-like calcifications are highly suggestive of histoplasmosis. However, there are definite limitations to roentgen examination of the chest with respect to etiology. The likelihood of calcifications, as observed roentgenologically, being due to histoplasmosis is greater in known endemic areas. For example, the chances of such calcifications being tuberculous in New York are about 90 per cent, whereas in endemic areas the likelihood of calcifications being due to histoplasmosis is approximately 75 per cent.

Among the many drugs suggested in the treatment of histoplasmosis—such as ethyl vanillate, Fuadin (trivalent antimony), and Neostam (pentavalent antimony) as advocated by Meleney;† stilbamidine; 2-hydroxystilbamidine; and Propamidine—ethyl vanillate seems to be most beneficial in the treatment of histoplasmosis. Stilbamidine is quite toxic; although 2-hydroxystilbamidine does not cause the type of neuropathy frequently seen after the use of stilbamidine, it is equally effective. Patients improve for a number of months after the use of these two latter drugs, but the improvement is not sustained. Ethyl vanillate is a difficult drug to administer because of the amount needed to give results and because the point between the therapeutic and toxic levels is only 35 per cent, a margin of safety too small to allow use as an adequate therapeutic agent; it is, however, the best drug we have at this time and should be used even though it may occasion intractable vomiting due to gastric irritation of the drug. When such a condition ensues, the drug should be discontinued for several days at a time and then continued for longer periods.

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ARTIFICIAL RESPIRATION FOR CHILDREN

A new method of manual artificial respiration for children less than 2 years of age is described in the October 22 issue of the *Journal of the American Medical Association.* The method, developed by Capt. H. J. Rickard, United States Naval Air Missile Test Center, Point Mogu, Calif., depends on the movements of the child's own internal organs. The child is laid face down on the outstretched forearm with the head in the administrator's hand and the legs straddling the elbow joint. The operator's arm is moved in "see-saw" fashion, so the child's body is raised and lowered. This makes the abdominal viscera push and pull on the diaphragm, forcing air out of and into the lungs.

MEDICAL EMERGENCIES IN THE PERINATAL PERIOD

ALLAN BLOXSOM, M. D., Houston, Texas

THERE is an old saying, not found in Bartlett's "Familiar Quotations," that there are only three really important events in a person's life. The first is when he is born, the second when he marries, and the third when he dies. Nothing is known about the perimortal episode; little, except what Dr. Kinsey reports, is known about the perimarital period; but considerable information is available with regard to the perinatal event.

The term perinatal generally is used to cover the events immediately preceding birth, during birth, and the first 96 hours after delivery. It is during this perinatal period that the infant is pushed out by his mother from an environment where Eastman[13] has noted that the oxygen tension is equal to that of about three-fourths of a mile above Mt. Everest to parachute down from this oxygen partial tension of 40 mm. of mercury to one of 100 mm. of mercury. A great majority easily make the jump, immediately adjusting over a period of some 20 minutes on the way down, and emerge safely from the Valley of the Shadow of Birth so fully described by Clement Smith.[21] There are a few, however, who make this adjustment with difficulty; and some infants, of course, never open their parachute, open it too late, or become entangled in the parachute cords. It is obvious that the obstetrician, the anesthetist, and the pediatrician have a mutual and overlapping interest and responsibility in this perinatal period. When the occasional infant does not make a satisfactory jump, a pathologist interested in the problems of the perinatal period should evaluate fully the postmortem findings.

Edith Potter[20] in a series of 162 postmortem examinations has listed the causes of mortality today in the perinatal period as enumerated in table 1 in order of importance.

TABLE 1.—*Present Distribution of Causes of Death in the First Fourteen Days of Life in 10,000 Deliveries at Chicago Lying-In Hospital, 1951-1954.*[20]

Cause of Death	Percentage
Erythroblastosis	3.1
Pneumonia	4.3
Trauma	5.5
Anoxia	6.2
Other causes	6.7
Malformations	20.4
Prematurity	25.4
"Hyaline" membrane	28.4
Total	100.00

Presented as a part of a symposium on pediatrics for the Section on General Practice, Texas Medical Association, Annual Session, April 25, 1955.

At one time every infant helping to make the statistics in this table was a medical emergency. The general causes of these emergencies have remained the same as pointed out by Potter,[20] but the frequency of the individual causes has changed with the passage of time. Thus, at one time prematurity accounted for 47 per cent of deaths in the neonatal period; now it accounts for 25.4 per cent.

CAUSES OF DEATH

Erythroblastosis Fetalis.—Wiener[24] reported that the severely affected infant with erythroblastosis has a mortality rate of 46.4 ± 6.2 per cent when not treated with exchange transfusions. The mortality rate of a comparable group treated with exchange transfusion is 15.5 ± 2.0 per cent, and the difference of 28.9 ± 6.5 per cent is statistically significant. The exchange transfusion removes about 85 per cent of the circulating red cells, 25 per cent of the anti-Rh antibody, and, more important, perhaps a third of the total bilirubin.[12] The speed at which the exchange transfusion is started to remove the circulating Rh-positive red blood cells, the anti-Rh antibody, and the bilirubin will determine the favorable outcome. The alerting by the obstetrician of the pediatrician that such an emergency may be expected allows the pediatrician to have the exchange set-up in readiness and sufficient fresh blood of not more than 48 hours of age that has been previously crossmatched by incubating the donor's cells with the mother's serum (before the infant is delivered). Given such an ideal set of working conditions, the pediatrician can do the exchange immediately after birth instead of 6 to 12 hours later.

The indications for an exchange transfusion are a positive Coombs' test in an Rh-positive infant delivered of an Rh-negative mother whose antibody titer is above 8 units by the albumin-plasma technique. Other indications for exchange are (1) clinical evidence of erythroblastosis fetalis on physical examination, (2) immaturity, less than 38 weeks' gestation, (3) bad past history, such as kernicterus in a previous infant, and (4) prenatal maternal anti-Rh titer of 1:8 or higher. The indications for a repeat exchange transfusion are (1) a rapidly increasing jaundice or (2) a serum bilirubin of more than 20 mg. per 100 cc. or appearing to be going that high. Success or failure in this perinatal medical emergency rests with the obstetrician working with the pediatrician as a team before delivery of the infant.

Pneumonia.—Arey[3] stated that bronchopneumonia

was the cause of deaths in 7 infants in his series of 50 autopsies. All of these 7 deaths were of premature infants and 4 lived less than 24 hours. Fourteen other infants had varying degrees of bronchopneumonia, but in these it was not thought to be the principal cause of death. Judd[16] stated that the use of antibiotics maternally for the prevention of fetal infection seems to be of definite value. Here again, the obstetrician and pediatrician should collaborate as a team and give the mother with ruptured membranes of 12 hours duration, the febrile patient, or the patient who is in labor for a long period of time a broad spectrum antibiotic that passes the placenta for the protection of the infant. The pediatrician, upon delivery of the infant, should give that infant an antibiotic intramuscularly and also nebulize penicillin in a mist of full strength Alevaire as a vehicle with a spreading agent for high topical application in the lungs.[6]

Trauma.—Gross injury sustained through and during the passage of the birth canal may result in intracranial, spinal, or visceral lesions. This is the group in which real tragedy is hidden when the medical emergency is met and the infant survives to develop cerebral palsy later.

The type of delivery plays an important part in trauma. Thus, mid forceps and high forceps carry three times the incidence of trauma as normal delivery. The type of presentation influences the risk of trauma to the infant. Trauma at delivery may lead not only to mechanical injuries, but to changes due to anoxia from interference with the respiratory center by those mechanical injuries.

Anoxia.—The perinatal emergency of anoxia requires the combined efforts of the obstetrician, the anesthetist, and the pediatrician to prevent and to treat, in an attempt to reduce further the morbidity and mortality from this cause. The symptoms of fetal distress of rapid heart beat, irregular heart beat between contractions, passage of meconium, and increased fetal activity are well known. As previously noted,[13] the fetus exists in an oxygen tension equal to that about three-fourths of a mile above Mt. Everest. He has little margin of safety between his relative and an absolute anoxia. Intrauterine anoxia warrants all attention possible of the obstetrician and the anesthetist.

In his eagerness to treat anoxia in the premature infant, the pediatrician may create for himself and his patient a new problem. Retrolental fibroplasia now occurs in 10 to 20 per cent of infants weighing less than 3½ pounds. The continued exposure of the young premature infant to high oxygen concentrations above 40 per cent is believed now to be the most important factor in whether or not the premature infant will become blind. In fact, Szewczyk[22] stated that if a premature infant is not given supplemental oxygen, it is almost a guarantee that that child will not develop the blindness of retrolental fibroplasia that all parents and physicians fear. This disease of the incubator should be avoided if possible.

Kellaway and Bloxsom[17] have found in a small pilot series of 16 children with retrolental fibroplasia that 9 children showed changes in their electroencephalograms which indicate that there is an area of abnormality in the occipital lobe of the brain. Seven children showed spiking foci in the right occipital lobe, 5 showed spiking foci in their left lobes, and 3 showed spiking foci in both right and left lobes. Whether this abnormal activity is due to damage of the primary sensory cells of the retina or whether it is due to oxygen poisoning of the cells in this area of the brain is not known. In passing it is interesting to note that Levinson, Gibbs, Stillerman, and Perlstein[18a] found electroencephalographic foci involving the occipital region six times more common in older children with eye disorders than all other foci combined. Further study will have to be made of children showing neuro-ocular disorders as to whether this central nervous system change may be associated with oxygen therapy at birth. In addition electroencephalographic studies should be done on infants showing perinatal evidence of hyaline membrane disease to determine if there have been any central nervous system changes.

Bloxsom[8] recently called attention to the fact that with the increased concentrations of oxygen presently used in therapy the sum of the tensions of the various gases in the blood are increasingly decreased subatmospherically at the point of internal respiration as soon as the relatively small additional amount of oxygen forced into solution in the plasma is used. In order to bring the sum of the tensions of the various gases in the plasma back to the optimal value at the point of internal respiration found at sea level, he recommended the use of a pressure of 2 pounds for each infant receiving 30 per cent oxygen.

An accurate oxygen analyzing device must be in every premature and recovery nursery. These instruments are simple to operate, and every nurse should know how to use one. Readings should be taken three times daily at the change of nursing personnel and the information listed on the infant's chart. Whenever a 40 per cent level or above is reached from the rate of oxygen flow ordered by the physician, the nurse in charge should call this fact to his attention.

In the process of attempting to provide a patent airway, tracheal catheters are used by many physicians. When such a catheter is used in the premature infant, the mortality rate[4] is twice that of the

group of premature infants in whom it is not used. The use of a tracheal catheter on a premature infant in resuscitation is unjustified and carries an excessively high rate of mortality.

Bloxsom and Sister Mary Angelique[9] have shown that the mortality rates of the premature and term infant can be effectively reduced when the Air Lock is used for accessory oxygenation and pressurization. Townsend[23] stated that the Air Lock made a valuable contribution to the management of certain premature infants processed in the Rochester Regional Premature Center at the Rochester (N. Y.) General Hospital when they required oxygenation efforts over a prolonged period of time. Eastman in a recent editorial[14] favorably commented on the added value of the Air Lock as compared to one of the better known incubators when used in treatment of alternate premature and cesarean section infants in Baltimore. Eastman's series at present covers more than 500 premature and cesarean section infants.

Apgar and Kreiselmen[2] demonstrated that adult dogs with hypoventilation induced by drug depression showed satisfactory oxygenation and removal of carbon dioxide while being cycled in the Air Lock. There appears little controversy now that the drowsily drugged, hypoventilated, and hypoxic infant should be pressurized and cycled in the Air Lock until satisfactory respirations are established.

Other Causes.—Under the heading of other causes is included fetal deaths from cesarean section and maternal diabetes. Malone[19] stated that the lowest fetal mortality occurs when the incidence of cesarean section is between 4 and 5 per cent. The fetal mortality increases when the rate is either higher or lower than this incidence. Bloxsom[5] has shown that there is a lower incidence of morbidity when a trial of labor of eight hours is allowed the mother before cesarean section.

The infant delivered by cesarean section has trouble primarily from edema of the brain and hyaline membrane disease, with the premature infant being affected more frequently than the term infant. An attempt thus should be made to visualize the femurs of the fetus by roentgenograms for the ossification centers of the lower epiphyses to determine if the age of the infant is at least 38 weeks of gestation in order to avoid cesarean section of the immature premature infant.

Upon delivery the placenta should be suspended above the infant for at least 15 minutes, or the blood can be milked from the placenta into the infant's circulation. It has been shown that as much as 90 cc. of blood can be added to the infant's circulation by this means. When the mother has had no trial of labor, the infant should be cycled in the Air Lock for eight hours using only air, and under no circumstances oxygen above 30 per cent.

Gellis and others[15] have recommended lavaging the cesarean section infant's stomach. Table 2 shows a small series of infants delivered recently by cesarean section in the Hermann Hospital in Houston where this procedure was done as a routine measure. A large amount of fluid has not been obtained from the routine use of lavage in the cesarean section infant, and from this small series the routine use of such a procedure would not be indicated.

TABLE 2.—*Fluid Obtained from Lavaging Stomachs of 8 Cesarean Section Infants at Hermann Hospital in Houston.*

Infant	Sex	Weight (lb., oz.)	Fluid Obtained (cc.)
1	F	5, 13	0
2	M	6, 11	5
3	M	7, 13	20
4	F	6, 6	12
5	F	7, 8	10
6	F	7, 7	15
7	M	7, 4	10
8	F	6, 9	0

The question of hyaline membrane disease will be discussed in a later section of this paper. At this point it would seem that oxygen should not be used on the cesarean section infant above atmospheric concentration, but an accessory head of oxygen could be furnished by cycling in the Air Lock. However, should additional oxygen be indicated, it should be used only up to 30 per cent, and the infant should be pressurized to 2 pounds.

The perinatal complications of maternal diabetes are (1) a high stillbirth rate, (2) a slight but definite increase in the occurrence of congenital abnormalities, (3) excessive size of the fetus, and (4) hyaline membrane disease. Glucose should be offered every two hours and efforts made adequately to treat hyaline membrane disease upon the first appearance of this syndrome. In passing it might be noted that when a large infant is seen, the mother as well as the father should be thoroughly examined for the possibility of diabetes.

Malformations.—In spite of the emphasis on prenatal care and diet, physicians have been unable to decrease the frequency of malformations. Among those malformations may be mentioned esophageal atresia, diaphragmatic hernia, tension pneumothorax, agenesia of the lung, chylothorax, intestinal atresia, Hirschsprung's disease, omphalocele, and extrophy of the bladder. These malformations may be more properly classified as surgical emergencies. At operation the proper care with regard to fluid intake and caloric requirement should be in the jurisdiction of the pediatrician.

Prematurity.—Premature deliveries account for 5.5 to 7.5 per cent of all deliveries in spite of good maternal prenatal care, diet, and the wide use of hor-

mones. However, with the steady rate of incidence of prematurity the survival rates for the premature infant have increased. This has been due largely to the establishing of premature nurseries and the adequate training of special personnel to work in these nurseries. It is interesting to note that although the survival rates of the premature have increased, the incidence of premature infants in the different weight groups under 2,500 Gm. has remained essentially the same. The increase of survival has been in the infants in the two top weight groups of 1,501 to 2,000 Gm. and 2,001 to 2,500 Gm.

The primary perinatal complications of prematurity are (1) immaturity, (2) hyaline membrane disease, (3) atelectasis, and (4) infection. Immaturity from cesarean section should be avoided. Hyaline membrane disease will be discussed later. Bruns and Shields[10] have called attention to the possibility that high concentration of oxygen therapy may be a factor involved in the formation of hyaline membrane disease in the premature infant. Thus the premature infant coming from an environment in which the oxygen tension may be 40 mm. of mercury has a good chance of survival if he does not encounter a layer of high oxygen smog. This some physicians believe may lead to an immediate oxygen poisoning with a resorptive atelectasis of the lungs. A delayed oxygen poisoning may be manifested by retrolental fibroplasia and neuro-ocular disturbances in later life.

One need not deny an infant an increased oxygen tension in his blood if he needs it. After all, an immediate survival is necessary. However, the infant does not have to be exposed to "incubator disease" as soon as he is born.

Oxygen plasma tensions can be increased without increasing the oxygen concentration by placing the infant in an Air Lock, raising the pressure to 2 pounds, and cycling. If in spite of increasing the oxygen plasma tension by pressure means, anoxia as evidenced by cyanosis is not lessened, then oxygen can be added up to a concentration of 30 per cent. The immediate problem of survival should be met adequately and oxygen used only when necessary and then under pressurization.

Hyaline Membrane Disease.—Hyaline membrane disease now accounts for 28.4 per cent of all causes of death in the perinatal period. This is an emergency that develops shortly or a few hours after birth, consisting of rapid respiration progressing to grunting, dyspnea, cyanosis, and marked retraction of the chest wall. The infant may recover or die. If he dies, he dies a death of slowly progressing anoxia and is completely exhausted at the end. The physician in turn becomes depressingly frustrated in his knowledge of the slowly increasing mechanical blockage of the gaseous exchange in the lungs of his patient.

As soon as any respiratory distress is evidenced, the infant should be thoroughly evaluated by physical examination, roentgenograms, and if possible an electrocardiogram. Diaphragmatic hernias, tracheoesophageal fistulas, intracranial hemorrhage, and bronchopneumonia may cause respiratory distress and simulate hyaline membrane disease. Ahvenainen and Landtman[1] have reported iso-electric, diphasic, inverted, or flat T waves in lead I and II when asphyxia was of pulmonary origin in a series of autopsies of newborn infants. These changes were not observed when the asphyxia was of a central nervous system origin, and these authors suggested that the changes in the T waves might serve as a diagnostic aid in neonatal asphyxia and consequently as a guide to adequate treatment.

Having made a diagnosis of asphyxia of primary pulmonary origin, early and adequate treatment is indicated. If the infant has been under oxygen, he should be placed in an Air Lock for cycling and to try to reduce the oxygen concentration to that found at sea level. A therapeutic sized mist of full strength Alevaire should be used at once in the Air Lock as a vehicle for high topical application of hyaluronidase and penicillin in the open alveolar sacs. Five hundred units of hyaluronidase (Alidase or Wyvase) and 2 million units of soluble penicillin are added to 500 cc. of Alevaire, and this solution is nebulized from a standardized nebulizer in the Air Lock. In addition the infant should receive vitamin K and an antibiotic of choice intramuscularly.

If the cyanosis or retraction does not lessen, then oxygen should be used up to 30 per cent. When cycling is discontinued, a positive pressure of 2 pounds should be continued, gradually reducing the oxygen concentration to that normally found at sea level.

The exact cause and mechanism of hyaline membrane disease in the newborn infant is not known. A voluminous literature has accumulated, both experimental and clinical. Several interesting and significant articles have appeared recently.

Tran Dinh De and Anderson[11] have called attention to the fact that although oxygen poisoning will produce hyaline membranes in adult guinea pigs and rats, there is rarely any associated atelectasis. However, newborn guinea pigs and rats react to oxygen poisoning with the complete picture of hyaline membrane disease with atelectasis seen as the parcel pathologic picture in the newborn infant. These authors suggested that there is some special predisposition on the part of the newborn lung to this entity, that is the coupling of hyaline membrane disease and atelectasis.

Bloxsom[5] has called attention to the possibility that the primary mechanism of hyaline membrane disease and atelectasis in the newborn infant may be

the collapse of the pulmonary pressure through leakage into the alveolar sacs following initial expansion of the lungs and that hyaline membrane disease may start originally as a beneficial mechanism to prevent this leakage.

Laufe and Stevenson[18] suggested that the primary mechanism of the disease includes (1) aspiration of amniotic fluid by the newborn infant; (2) the exudation of the lungs of a fluid of high protein content as a result of vagal injury, irritation from amniotic fluid, administered oxygen, or anoxia; (3) a clotting process speeded by the amniotic fluid acting upon this exudate which becomes in turn a hard exudate; (4) creation of extensive atelectasis by plugs of the clotted material in the terminal bronchioles; (5) as this process slowly progresses, the increase simultaneously of anoxia until asphyxiation occurs; (6) removal by these cells of the obstructing membrane allowing return of aeration and recovery if the changes are minimal and there is ample time for leukocytic response.

From this discussion it is obvious that today time remains the best therapeutic agent for this emergency of hyaline membrane disease seen in the perinatal period. Laufe and Stevenson[18] suggested the possible future use of intrapulmonary anticoagulants by nebulization. Bloxsom[7] clinically has found the use of hyaluronidase in nebulization with penicillin for high topical application of value in early treatment to prevent pulmonary infection.

If the infant survives, all symptoms disappear between the fourth and seventh day. Fluid intake of the infant for the first 48 hours is of a minor point if he is in a therapeutic mist, particularly if the infant has received all the fetal blood due him from the placenta.

CONCLUSION

The majority of perinatal emergencies occur because of intrauterine distress, prematurity, and cesarean section. Obstetric mortality now has reached a fairly satisfactory low. Perinatal mortality has been lowered and will be lowered further through the close teamwork of the physician delivering the infant, the anesthetist, and the pediatrician during the entire perinatal period.

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ASTHMA BOOKLET READY FOR LAYMEN

A high fever or a major surgical operation brings temporary relief to asthma sufferers; roses and other bright colored flowers are not important causes of asthma; emotional upsets can induce asthma attacks but the disease is not known to be of psychosomatic origin. These are some of the facts presented in a new publication, "Handbook for the Asthmatic," prepared by the American Foundation for Allergic Diseases and thought to be the most comprehensive collection of information on asthma available to laymen.

The pamphlet erases many of the fables surrounding asthma and outlines some of the things the asthmatic should know about a disease that seriously affects more than two million Americans. It also raises the question to which answers can be given only after continued research.

Copies of this booklet may be obtained for 25 cents in coin from the American Foundation for Allergic Diseases, 274 Madison Avenue, New York 16.

Plastic Surgery in the Correction of Congenital Deformities in Children

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CONGENITAL deformities in children constitute not only a physical handicap but, if left untreated, a psychologic and sociologic handicap as well. It is important, therefore, that they be cared for in early life. A few of the more common congenital deformities with which the plastic surgeon is concerned will be discussed briefly.

DEFORMITIES

Cleft Lip.—I prefer to defer the correction of the incomplete cleft lip until the child is 3 to 6 months of age. The reason for this is that the more developed the child the less any error will be magnified by growth. The rectangular flap method of repair is utilized with an attempt being made to reconstruct the cupid's bow and to correct the usual nasal deformity.

The complete cleft lip with an associated cleft of the alveolar arch and palate presents a somewhat different problem. Here, because of the separation of the alveolar processes, it is wise to repair the lip by the age of 3 months or while the maxillary bones are still soft enough for the elastic traction of the upper lip to bring them together (fig. 1).

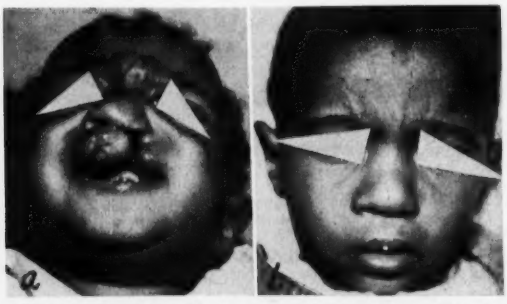

FIG. 1a. Complete cleft of the lip, alveolar process, and palate with the usual associated nasal deformity. Age 7 weeks.
b. Appearance of the child eight weeks postoperatively.

A double cleft lip, like a unilateral cleft lip, can be complete or incomplete or complete on one side and incomplete on the other. The same rationale is used in timing its repair. The complete bilateral cleft lip with the premaxilla projecting a considerable distance anterior to the lateral processes presents the additional problem of repositioning the premaxilla. If the premaxilla projects 5 mm. or so anterior to the lateral processes, the lip can be repaired over it doing either one side at a time or both sides at the same time. However, when the premaxilla extends 10 to 15 mm. anteriorly and providing it is of fairly large size, I usually set it back by resecting a segment of the vomer, taking care to fix it well anterior to the lateral processes, in an effort to guard against the development of a retruded or flat upper lip. The bilateral cleft of the lip is then repaired some three months later. Because of the congenitally short columella in these cases, the tip of the nose is always flattened and the ala flared (fig. 2).

FIG. 2a. Complete cleft of the lip on the right, incomplete on the left. Age 4 weeks.
b. Appearance of the child sixteen months postoperatively.

In all poorly repaired cleft lips with an uncorrected nasal deformity it is usually best to do a complete secondary repair and at the same time correct the nasal deformity. Many of these children have a fissure-like cleft of the alveolar process and anterior palate and a fistula extending from the upper alveolar sulcus into the nasal floor. These should be repaired and the nasal floor reconstructed as an integral part of the operation. Occasionally it becomes necessary to fit the child with an upper plate designed to hold forward a retruded upper lip.

The deformity resulting from a poorly repaired bilateral cleft lip usually presents twice the problem a unilateral one does. It is not uncommon to see repaired double cleft lips which are too long in a vertical direction and too short in a transverse direction. This results in a tight upper lip with protru-

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sion of the normally full lower lip beyond it. This deformity usually can be corrected by switching an appropriately shaped full thickness flap from the lower lip into the upper lip, which procedure lengthens the upper lip and shortens the lower. In these cases a prosthesis is often indicated to hold the upper lip further forward.

Cleft Palate.—I usually recommend that cleft palates be repaired when the child is 18 to 24 months of age. This is about the time that the child begins to talk. Closure of the palate cleft at this age often prevents the child from developing faulty speech

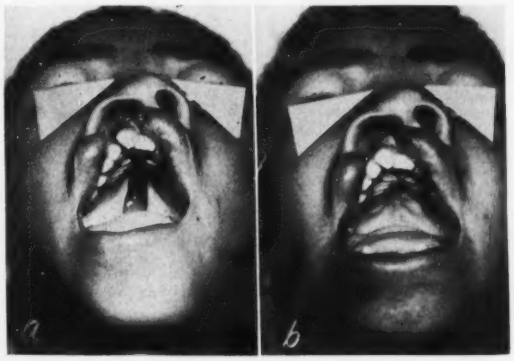

FIG. 3a. Complete cleft of the lip, alveolar process, and palate. Age 6 years.
b. Arch and palate six weeks postoperatively.

habits which may be difficult to correct. In repairing a palate cleft, one must always weigh the chances of interfering with development of the maxilla against the chances of the patient becoming a speech cripple. In my opinion it is better judgment to risk interfering with development of the maxilla than it is to run the risk of the child developing faulty speech. On the other hand, should a patient present himself for repair of a cleft palate and lip after the maxilla has attained its growth, it is my practice to repair the palate and cleft of the alveolar arch first and follow this after a period of a few weeks with repair of the lip and nasal deformity. (Fig. 3.)

In postalveolar clefts of the palate there is often an associated palatine insufficiency. If this palatine insufficiency is definite, I do a one stage setback of the palate at the time that the cleft is repaired. In borderline cases I repair the cleft of the palate and wait to see if a speech defect develops. If it does, a one stage setback lengthening of the palate is performed. The reason for this difference in approach is that in setting back the palate considerable scarring takes place over the anterior 2 cm. or so of the hard palate, which can restrict growth of the upper dental arch. However, here again one must take his choice between the patient being a speech cripple or risking his being a dental cripple. Orthodontia can be of great benefit to the latter. (Fig. 4.)

Protruding Ears.—A common deformity, protruding ears are the result of underdevelopment or complete failure of development of the antihelix. In the correction of this deformity one is concerned with the reconstruction of the antihelix. The operation should be performed on a child between the ages of 4 and 6 years and is accomplished through a posterior incision. The true test of a well performed operation in this deformity is the appearance of the ear in the lateral view and not the anterior and posterior view.

Congenital Ptosis.—Congenital ptosis of the eyelid can be either unilateral or bilateral. It should be corrected at about the age of 3 years in order to prevent intractable amblyopia, facial grimacing, and bad postural habits. There are numerous methods of surgical correction. In complete ptosis I prefer to use strips of the orbicularis muscle (Reese) to attach the immobile upper lid to the mobile frontalis muscle on the same side. This is accomplished by tunneling beneath the eyebrow and fixing the orbicularis oculi strips to the frontalis muscle. These maintain

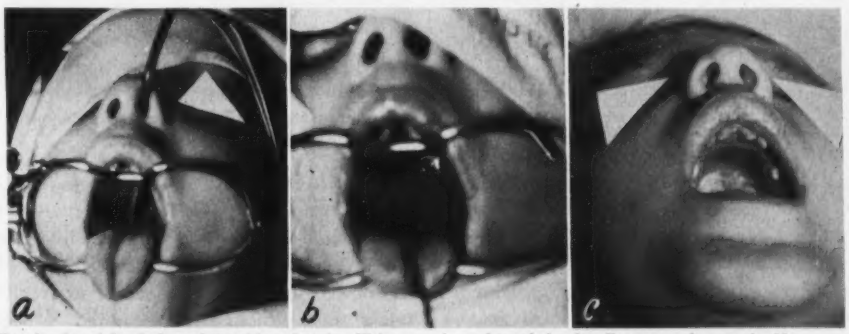

FIG. 4a. Postalveolar cleft of the palate with palate insufficiency or shortening. Age 6 years.
b. View during surgery demonstrating the detached palate with its major palatine bundle preserved on each side.
c. View of the anterior palate four weeks postoperatively demonstrating the distance it has been set back.

a normal orbital fissure in repose and permit the child to raise his eyelid further by elevating his forehead.

Syndactylism.—If there is equal growth of the digits involved in syndactylism, I recommend deferring surgery until the child is at least 2 years of age and preferably until he is 4 or 5 years of age. If the deformity is repaired earlier, contractures often develop along the lines of incision, interfering with growth of the digits and requiring secondary release. However, if there is unequal growth of the fingers involved, I believe that it is important to separate them at an early age in order to prevent further intrinsic deformity of the bones and joints. The dorsal and ventral flap technique with skin grafting of the residual surgical defects is employed.

Polydactylism.—In polydactylism the accessory member is usually best amputated during infancy. Generally the decision as to which member to amputate is easy, but occasionally it presents a definite problem. In such cases one must rely upon roentgenograms and careful clinical examination.

Pigmented Nevi.—Various types of pigmented nevi may occur anywhere. When these occur on the face and are too large for simple excision and closure, I remove them by stage excision rather than by excision and skin grafting because skin grafts on the face seldom match the surrounding skin. In other areas of the body where the cosmetic result is not so important large pigmented nevi are excised and the resulting surgical defect resurfaced with thick split skin grafts. (Fig. 5.)

cannot be removed without removing the full thickness skin. This problem is deferred until later life when it becomes a decision for the individual patient to make as to whether he wishes the hair bearing areas excised and skin grafted or whether he prefers to let the hair grow or keep it shaved. (Fig. 6.)

FIG. 6a. Bathing trunk nevus. Age 5 months.
b. Appearance four weeks after split thickness removal. Redness and scaling are still very evident.

Verrucous Nevi.—Though verrucous nevi are only occasionally seen, when they involve the face they can be very disfiguring. They are usually treated by simple excision if feasible or by split thickness removal or excision and skin grafting if extensive.

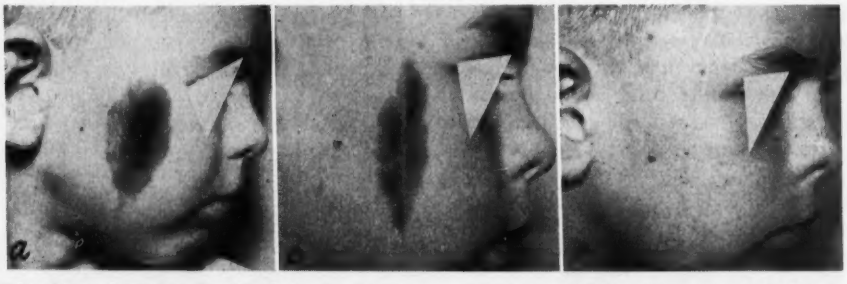

FIG. 5a. Hairy pigmented nevus on the right cheek. Age 7 years.
b. Appearance three months after the first stage excision.
c. Appearance following the second stage excision.

In the bathing trunk type of nevus it is sometimes possible to remove the major portion of the nevus by shaving off one-half to two-thirds of the thickness of the skin with a dermatome. Those portions of the nevus which extend deeper may be removed by simple elliptical excision if small and by excision and skin grafting if more extensive. Many of these nevi are very hairy, and, of course, the hair

Pilonidal Cysts and Sinuses.—Less than 1 per cent of all dermoid or pilonidal cysts occur in the region of the nasal bridge. The sinus opening may be present anywhere from the glabella to the tip of the nose. In most cases the cyst is seated between the nasal bones causing them to be separated. When the sinus is present at the tip of the nose, it must be circumcribed elliptically, the tract dissected subcutaneously

to the point at which it enters the cyst, and a second incision made over the nasal bridge through which the tract can be delivered and the cyst removed.

Hemangiomas.—Many hemangiomas undergo spontaneous fibrosis. Many more are cured by the use of carbon dioxide snow, sclerosing solutions, roentgen therapy, and radium. Most of the cases I see are those that either have not responded to any one or more of the previously mentioned forms of therapy or involve a feature or a hair bearing area. If, for example, a thick capillary hemangioma involves the upper lip, fibrosing it by any method will result in a thick lip for which the patient will sooner or later seek corrective surgery. When a capillary hemangioma is near the breast of a young girl, roentgen-ray or radium therapy may cause a disturbance in growth of the breast. On the scalp they often are nonhair bearing and, if they are fibrosed, will leave an area of alopecia whether or not hair follicles have been destroyed by treatment. When capillary hemangiomas involve the skin and if they are treated by roentgen rays or radium or even if they subside spontaneously, they frequently will leave a white parchment-like cicatrix which in most instances the patient will wish excised later in life. It is accordingly better to excise them surgically in the beginning, thus eliminating not only the tumor but the damaged skin as well. When the eyelid is involved, most dermatologists and radiologists are reluctant to employ radium because of the possibility of radiation cataract. Even when treated and sclerosis is obtained, the lid is often left thick and cosmetically unacceptable. Here again it is better to resort to surgical excision if at all feasible. (Fig. 7.)

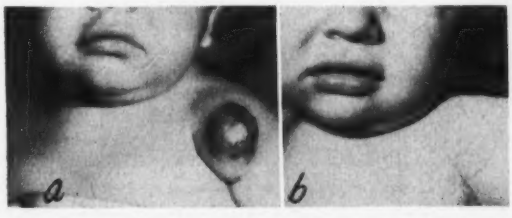

FIG. 7a. Previously treated capillary hemangioma, left shoulder. Age 9 months.
b. Appearance four weeks postoperatively.

Thyroglossal Duct Cysts and Fistulas.—The step-ladder technique of Hamilton Bailey should be employed for surgically excising thyroglossal duct cysts and fistulas. It is important to remove a segment of the midportion of the hyoid bone and to remove that portion of the tract that passes through the base of the tongue to the foramen cecum.

Pre-Auricular Branchial Cleft Sinus Tracts.—Most pre-auricular branchial cleft sinus tracts are asymptomatic. Occasionally, however, one becomes infected necessitating surgical excision. Care should be taken to remove the tract completely.

Branchial Fistulas.—Branchial fistulas of the neck terminate most commonly in the region of the tonsillar fossa. All should be injected with a radiopaque material prior to surgery. They are amenable to complete surgical excision utilizing stepladder incisions.

Micrognathia.—A common congenital deformity, micrognathia goes undiagnosed in a fair percentage of cases. It is usually associated with microglossia and a postalveolar cleft of the palate. In the more severe type the chin is markedly recessive, the tongue falling back into the pharynx over the epiglottis to cause inspiratory obstruction. If it is untreated, this form may result in asphyxiation or, if the child survives, in severe brain damage due to anoxia. The most widely used method of treatment is the creation of a surgical tongue-tie between the under surface of the tongue and the lower lip. The operation should be performed as soon after birth as possible and is frequently a lifesaving measure. It is, however, by no means foolproof. Occasionally the lead

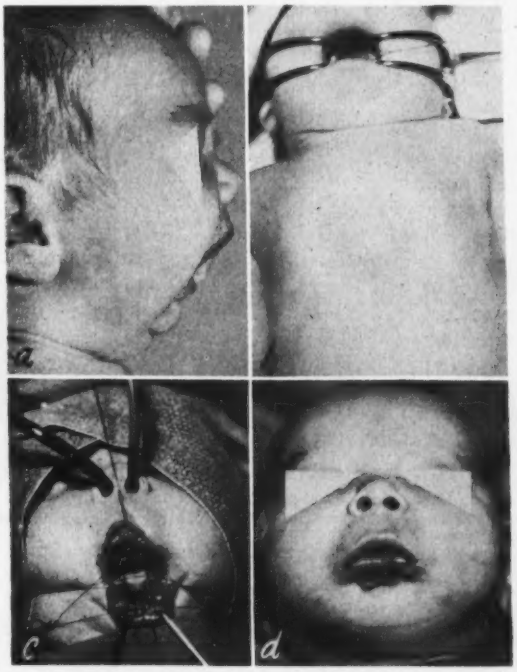

FIG. 8a. Lateral view of a micrognathic infant.
b. Anterior view demonstrating cleft palate, the "swallowed tongue," and sternal retraction from inspiratory obstruction.
c. Denuded strip on the under surface of the tongue and lower lip in preparation for fixation of the tongue to the lower lip. A mattress suture is being tied over lead plates with mucosal catgut sutures placed.
d. The Douglas operation completed. Note the tip of the tongue presenting directly above the free border of the lip.

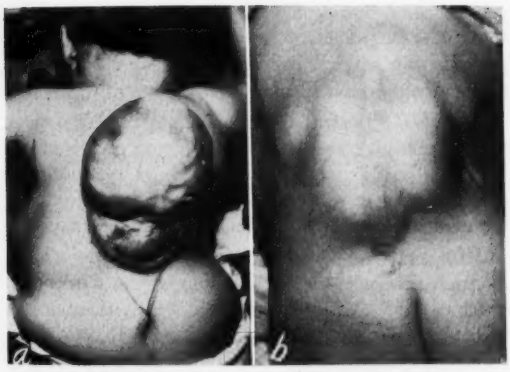

FIG. 9a. Large thoracolumbar myelomeningocele with marked kyphosis.

b. Appearance eight months postoperatively.

plate, over which the mattress suture is tied securing the tongue to the lower lip, will cut through the tongue before a firm adhesion develops. In some instances, even with a secure surgical tongue-tie the child has difficulty in breathing particularly during nursing and when crying. In these cases gavage feedings must be resorted to. After a period of six months to one year, or when the lower incisor teeth present themselves, the surgical tongue-tie can be released. During this time the mandible develops sufficiently to hold the tongue forward. (Fig. 8.)

Myelomeningoceles.—Myelomeningoceles are of common occurrence. Most are in the spinal region, but occasionally one is seen in the glabellar or occipital areas of the skull. The glabellar myelomeningoceles are treated by excision of the sac followed by repair of the skull defect with an autogenous bone graft. The occipital variety can be treated in the same manner. The spinal type is treated by excision of the sac followed by resurfacing of the defect with sliding flaps. I usually do not recommend repair of a spinal myelomeningocele until the usual associated hydrocephalus has been controlled either spontaneously or by surgery. (Fig. 9.)

Hypospadius.—An attempt is made to correct hypospadius in three operative procedures and occasionally in two. It is not infrequent, however, for complications to develop resulting in additional steps. I usually elect to defer surgery until the child is at least 2 years old and preferably until he is 4 years of age. The first operation consists of correcting the cordee and shifting the preputial skin to the ventral surface of the penis where it can be utilized later to reconstruct the urethra. In the second stage the distal urethra is reconstructed by tubing the skin of the ventral surface of the penis. In the third stage the reconstructed urethra is joined with the normal proximal urethra. Occasionally the latter two steps are combined. (Fig. 10.)

SUMMARY

Many of the congenital deformities in children can be corrected by plastic surgery. Some are best cared for during early infancy. Most should be corrected before school age.

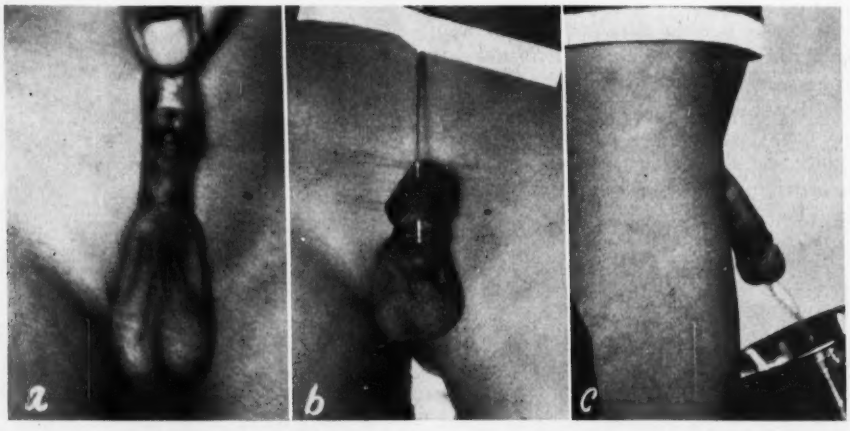

FIG. 10a. Penile type hypospadius. Age 5 years.

b. Appearance six weeks after the second stage reconstruction of the urethra.

c. Appearance eight months following the third stage reconstruction.

415 Medical Arts Building.

Because of their malignant potentialities, early detection and treatment of polyps of the colon and rectum will prevent the development of a substantial number of cancers of the large intestine.—C. Gianturco and G. A. Miller in CA, published by the American Cancer Society *4*:77 (May) 1954.

Anesthesia in Children

JOHN S. LUNDY, M. D., Rochester, Minnesota

IN ORDER that the viewpoint of those who administer anesthetic agents to children may be tied in with the viewpoint of the other members of this symposium on pediatrics, I wish to discuss certain ideas that come to mind as I consider the points made in the other presentations.

Shock.—In the preoperative care of children a serious problem is presented when cortisone or corticotrophin (ACTH) has been administered in the preoperative period. In my opinion a patient, whether a child or an adult, whose suprarenal glands cannot provide him with sufficient products to allow him to survive the stress of anesthesia and operation represents about as serious a risk as will be met in the operating room. Since I can find no reason to believe that preoperative preparation of a patient with cortisone is contraindicated or that it is harmful, I hardly think that one should be criticized for trying to be on the safe side by using such drugs for prophylactic treatment of shock whether the need for them is obvious or not. This, of course, applies as well to postoperative care if shock is present. Increased potency has been gained with the preparation fluorohydrocortisone,* and convenience has been obtained by providing ampules of concentrated hydrocortisone† for dilution when used. The most recent product is a water-soluble hydrocortisone† which can be used in a volume of 2 cc. without dilution. Thus, measures are available for combating shock when it occurs in patients undergoing anesthesia and operation. These measures along with those of longer standing make the treatment of shock more effective now than ever before.

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Congenital Deformities.—The administration of anesthetic agents to children with congenital deformities presents innumerable problems. Let us consider, for example, cardiac catheterization. In the past this procedure could not be done well in small children under local anesthesia. In my experience the most satisfactory technique that is relatively safe for the child and yet will keep him quiet enough so that insertion and viewing of the catheter through the fluoroscope is not interfered with is to administer by rectum 100 mg. of tribromoethanol (Avertin) (in 2.5 per cent solution) per kilogram of body weight when the child is placed on the fluoroscopic table. As soon as he is asleep, at which time his veins incidentally probably will have reached maximal dilatation, a 20 gauge needle is inserted into a vein and 1 cc. of normal saline solution is injected to make sure the needle is in the lumen of the vein. The needle is then connected to a Y piece which is connected to two syringes, one through each branch of the Y; one syringe contains normal saline solution and the other syringe contains thiopental sodium (Pentothal) in 2.5 per cent solution or less. For the safety of the child it is best not to inject thiopental until it is needed; therefore, the saline solution is used to determine whether the venipuncture is satisfactory, and then whenever the effect of the tribromoethanol begins to wear off and the child begins to move, the thiopental is administered. On rare occasions one needs to intubate such a patient for the adequate intermittent administration of oxygen; this need arises when respiration fails because the estimated dose of the anesthetic agent proves to be too large for the child when it has exerted its peak effect.

It is difficult to be sure that a child with congenital deformities is in satisfactory condition to undergo anesthesia. I recall a recent case, that of an 11 month old infant, in which the nares were closed and it was hoped that they could be opened by a simple surgical technique. On my preoperative visit to the patient I had the feeling that the child might not survive the anesthesia. Consequently, I requested that another patient be operated on first in order to give me time to consider how the deformed infant might best be handled. As I finished intubation of the other patient, an adult, I was informed that the infant had died in its crib before having been sent for by the surgical supervisor. Perhaps the child should have been given some preparation of cortisone, but that is pure surmise.

Tracheo-Esophageal Fistula.—The child who must undergo repair of a tracheo-esophageal fistula presents a problem to the anesthesiologist. I prefer, of course, to insert an intratracheal tube so that adequate venti-

*Manufactured by Merck & Company, Inc., Rahway, N. J.
†Manufactured by The Upjohn Company, Kalamazoo, Mich.

lation may be provided and so that the surgeon may have an additional means of identifying the trachea. Sometimes the operation is attempted under local anesthesia, to which method the anesthetist has no objection. Most surgeons, however, prefer general anesthesia. In such an instance the gas machine designed for adults is not satisfactory and the type designed for infants has an advantage. Currently, there is a machine‡ that has a breathing bag which can be brought close to the mask, and since the bag is small, it serves the same purpose as a special machine. Also available are one way breathing valves (Stephens-Slater) for children, or one may use Ayre's technique. These mechanical devices are an asset to the anesthesiologist in making anesthesia safe for children.

Eye Disorders.—In treatment of the eyes of infants and children one must employ an anesthetic agent from time to time, such as for measurement of intraocular pressure or, sometimes, for examination of fundi. If the procedure is brief (5 or 10 minutes), one may administer a preparation of vinyl ether (Vinethene) by the open drop method with considerable satisfaction. If the procedure is to be longer than 10 minutes, anesthesia may be induced with nitrous oxide and oxygen and followed with ethyl ether, or it may be induced with vinyl ether given by the open drop method and followed with ethyl ether. For enucleation and other more radical procedures, I prefer to use inhalation anesthesia, to intubate the patient, and to connect the gas machine so that the anesthetist is outside the surgical field and so that the patient may be provided with adequate ventilation and may be protected from respiratory obstruction.

Tonsillectomy and Adenoidectomy.—Many children require tonsillectomy and adenoidectomy. I prefer to administer sufficient thiopental by rectum to put the patient to sleep while he is still in bed; this is generally accomplished with 0.2 cc. of a 10 per cent solution of thiopental sodium per pound of body weight. Thus, the patient is usually brought to the operating room asleep. Even if he is not asleep, he hardly ever will have any memory of the trip. As a rule, I anesthetize the patient with a nitrous oxide–oxygen mixture and ether, using an infant type of gas machine with a small breathing bag on it for a very small child or an adult type of gas machine with a small bag for a larger child. The child may be intubated with an intratracheal tube. The mouth gag is placed and the tube is connected to the breathing tubes of the gas machine.

‡*Made by Heidbrink Division, Ohio Chemical and Surgical Equipment Company, Madison, Wis.*

The intratracheal tube usually is inserted through the mouth, but if tonsillectomy is to be done before adenoidectomy, the tube may be inserted through the nose. The adenoids can be removed with the tube in the nose since it generally will slide to one side or the other, but most surgeons prefer to have the tube in the mouth. Use of the tube in the mouth is not too convenient for the anesthetist, but it can be managed. One of the difficulties, of course, is that the tube may kink or that it may be pulled out of the larynx and trachea. However, with practice the technique can be mastered so that the tip of the tube will not enter the right main bronchus and will not be pulled from the larynx. The endotracheal technique permits the surgeon to do a real job in most instances without respiratory obstruction and without aspiration of material into the trachea.

Convulsions During Anesthesia.—If convulsions develop during anesthesia (most of them occur in hot weather) and if a barbiturate has not been used in the preliminary medication, the intravenous administration of small amounts of thiopental sodium will control the convulsions and usually will terminate their untoward effect. I am not impressed with the desirability of using trichlorethylene in children except in analgesic doses and for short procedures; therefore, I shall not discuss it.

GENERAL COMMENTS

Generally speaking, children require smaller doses of volatile anesthetic agents than do adults, which is reasonable in view of the difference in size. However, in the administration of gases the proportions that are used in adults are also the ones that are used in children but the volume of flow of each gas may be less in children than in adults, the essential point being that both the percentage of oxygen in the mixture and the volume of flow of oxygen are sufficient to avoid anoxia. The amount and percentage of other agents must be related to the flow of oxygen.

The technique of anesthesia for operations in children is no different in principle from that employed in adults. For example, for operations on the heart hypothermia may be used in either adults or children, although it may be applied more easily to children than to adults; conversely, other methods of anesthesia seem to be more easily applied to adults than to children. Certain difficulties arise from the fact that the anatomic parts of the child are often less readily accessible than are those of the adult; thus at the time of operation there may not be enough room immediately around the body of a child for the personnel necessary for the teamwork involved. Fortunately, the many agents and techniques available today make it possible to overcome such difficulties and to operate on almost any person with relative safety.

THE PROBLEM OF CEREBRAL PALSY IN TEXAS

ROBERTINE ST. JAMES, R.P.T., Galveston, Texas

CEREBRAL palsy has been defined as a group of conditions which affect the control of the motor system and which have their origin in lesions in various parts of the brain. These conditions cannot be cured, but with early diagnosis and treatment marked improvements in control and independence can be gained.

Several years ago Dr. Winthrop Phelps, noted pioneer in cerebral palsy, arrived at an estimate of the incidence and prevalence of this condition through repeated samplings done in New Jersey, Maryland, and other areas.[1] His formula suggests that 7 infants with cerebral palsy are born every year in each 100,000 population. Of this 7, 1 will die in the first six years of life. Thus, a constant case load of 126 up to the age of 21 years can be estimated for every 100,000 population. A later survey, performed in 1948 in Schenectady County, New York,[3] confirmed the findings of Phelps and found it, perhaps, to be somewhat conservative.

MISS ROBERTINE ST. JAMES, *Director of the Moody State School for Cerebral Palsied Children, was one of the special speakers at the 1955 Annual Session of the Texas Medical Association in Fort Worth. This paper was presented before the Section on Pediatrics, April 25.*

In addition, this survey included a comparison of the incidence of cerebral palsy with that of poliomyelitis. On the basis of about 300,000 births it was estimated that there are about 1,500 children born with cerebral palsy each year in New York State, of whom 200 die within the first six years of life. Of the remaining 1,300 cases 8 per cent are only slightly handicapped, leaving an increment each year of approximately 1,200 persons moderately to severely handicapped by cerebral palsy. Corresponding data for reported cases of poliomyelitis in New York State during a four year period showed there was an annual average of 2,345 cases of poliomyelitis, including an epidemic year in 1944. The data indicated that 3 per cent of poliomyelitis patients succumbed and 17.5 per cent were afflicted with moderate, marked, or complete residual paralysis. Assuming these figures to be generally applicable, there would occur an annual increment of 410 persons with moderate to complete physical handicap caused by poliomyelitis each year or approximately one-third the number so handicapped by cerebral palsy.

A survey of the number of cerebral palsied persons in this state is currently being carried on at the University of Texas through a grant from the United Cerebral Palsy Association.

Previous statistics, however, point out the magnitude of the problem in a state as large as Texas. With a population of approximately 8,000,000 we are faced with a conservative estimate of 10,000 cerebral palsied persons under 21 years of age. In spite of this, there are countless hundreds of people who are totally unaware of the condition and countless others who recognize it but who do not know what may be done about this serious problem.

HELP FROM PHYSICIAN

The practicing physician should be alert to the danger signals before and immediately after birth in order to prevent the condition whenever possible. After birth it is necessary to observe the baby carefully for any deviations in normal development. The infant who has difficulty sucking and swallowing is always suspect, for it has been reported that 90 per cent of cerebral palsied children have a history of difficult nursing. The baby who lies too quietly in his crib—who does not kick or fails to kick reciprocally—is a fair candidate for cerebral palsy. Maintaining one or both fists clenched beyond 12 to 16 weeks and failure to develop reach, grasp, and release are indications of brain damage.

These features of developmental deviations often go unnoticed or unchallenged by both the parents and physician until the infant has reached the age of 6 months and even later. The possibility of danger ahead is not recognized until the mother suddenly is thrown into panic when she becomes aware that her child does not roll over, cannot pull himself up, or cannot sit alone.

Then, or at whatever moment the condition of cerebral palsy is recognized, is the time the physician can do the greatest good for both the child and his parents, for the most traumatic period in the lives of parents of handicapped children is from the moment it is learned that their child is different to the time they learn that they can do something constructive about the problem.[2] God alone is qualified to say to the parents of a handicapped child on superficial examination, "This child is an imbecile—put him away" or, "He will outgrow it—don't worry about it." Yet, how often in the past have those very words been

spoken to the confused, frightened, and anxious parents. The facts being considered realistically, it must be admitted that few physicians are interested in cerebral palsy as such, but it is within the province of the family physician to recognize deviations from the normal, to diagnose, and to guide the parents accordingly. They will be grateful.

Approximately 30 to 50 per cent of cerebral palsied children are mentally defective, but no one is entitled to make that diagnosis until a fair opportunity for learning has been given. This opportunity should include a complete medical examination, hearing evaluation, eye examination, appropriate therapy, and finally, a psychometric evaluation by someone qualified to appraise children with multiple handicaps.

The need for special sense evaluation cannot be emphasized too much. Frequently children have been labeled mentally defective because of lack of speech and language development who later have been found to be of average or superior intelligence but with hearing losses. It is encouraging to realize that with proper training these cerebral palsied children are able to learn normal or near-normal speech, and many have taken their rightful places in public schools or special education classes. Others may have visual handicaps in addition to cerebral palsy; obviously, if these children were exposed to a standard psychological test and the visual limitation were not taken into consideration, their scores could not help but be poor. This situation might lead to a permanent stigma resulting in deprivation of further opportunity. Still others may have learning disabilities such as perseveration and conceptual or perceptual disorganizations which, unless recognized, might cause a child to be considered a defective.

But—to go back to the time of greatest need for parents who have just discovered their child has cerebral palsy. There are many ways in which the physician can help these parents through this period of aloneness and anxiety. First, he should discuss the condition of cerebral palsy with them, explaining what it is and how and why it sometimes happens, to assist in easing whatever feelings of guilt they might have; and he should offer suggestions for reading about the problem. A list of suggested reading for parents follows:

BOOKS AND PAMPHLETS

Brown, Christy: My Left Foot, New York, Simon & Schuster, 1955 (first published in *Good Housekeeping*, Jan., 1955).

Carlson, Earl R.: Born That Way, New York, John Day Company, 1941.

Cruickshank, William M., and Raus, George M., Editors: Cerebral Palsy, Syracuse, N. Y., Syracuse University Press, 1955.

Gratke, Juliette: Help Them to Help Themselves, Dallas, Society for Crippled Children, 1947.

McKee, John D.: Two Legs to Stand On, New York, Appleton-Century-Crofts.

Stern, Edith M., and Castendyck, Elsa: Handicapped Child, New York, A. A. Wyn, 1950.

MAGAZINES

Cerebral Palsy Review, published monthly in Wichita, Kan.

Crippled Child, published monthly in Chicago by National Society for Crippled Children and Adults.

Second, the physician should encourage these parents to meet others in the community who have handicapped children, affiliate with local and state organizations which are actively concerned with the problem, and talk with professional workers as a means of directing their energies and emotions into purposeful channels. Third, he should refer them to a treatment facility where a total appraisal of the child can be made with the special therapies available to initiate a good home training program. By guiding the parents into such a positive action plan early, he will help them learn of the tremendous task which is ahead and make them better able to tackle the task with determination, faith, and courage.

SPECIAL FACILITIES IN TEXAS

It was this determination and faith which spearheaded the growth of treatment and special education facilities for cerebral palsied children throughout the country. The first effort to help such children in Texas was at the Hughen School, organized in 1937 in Port Arthur,[4] where partial treatment is given but where the greatest emphasis is placed on academic work. In 1946 the first out-patient cerebral palsy treatment center was established in Houston. Since that time county affiliates of the Texas Society for Crippled Children have organized 24 other centers so that now treatment and diagnostic facilities have been set up in virtually all areas of the state. All of these treatment centers operate under medical direction with one or more of the special therapies provided. In smaller communities the programs frequently are limited in personnel whereas in larger cities there are complete diagnostic teams with a full complement of registered therapists. Large or small, however, a vitally needed service is being offered to cerebral palsied children and their parents.

The following is a list of out-patient treatment facilities for the cerebral palsied in Texas:

ABILENE.—West Texas Rehabilitation Center, 4250 Potomac.

AMARILLO.—Amarillo Cerebral Palsy Treatment Center, 808 Crockett Street.

AUSTIN.—Cerebral Palsy Center, 919 West 28½ Street.

BAYTOWN.—Baytown Cerebral Palsy Treatment Center, 1205 Morris Street.

BEAUMONT.—Beaumont Treatment Center, Hotel Dieu Hospital.

BROWNSVILLE.—Brownsville Cerebral Palsy Treatment Center, Box 841.

CORPUS CHRISTI.—Crippled Children's Hospital, Inc., 1316 Third Street.

DALLAS.—Cerebral Palsy Treatment Center, 2312 Oak Lawn.

EL PASO.—Cerebral Palsy Treatment Center, 2112 Erie.

FORT WORTH.—Fort Worth Cerebral Palsy Treatment Center, 1508 Hemphill.

GALVESTON.—Rehabilitation Clinic, University of Texas Medical Branch.

HOUSTON.—Arabia Temple Crippled Children's Clinic, 1402 Outer Belt Drive, Texas Medical Center; United Cerebral Palsy of Greater Houston, 1415 California Street.

KILGORE.—Gregg County Treatment Center, 701 Nolen Street.

LUBBOCK.—Lubbock Cerebral Palsy Treatment Center, 3502 Avenue N.

MARSHALL.—Harrison County School for Handicapped and Crippled Children.

MIDLAND.—Cerebral Palsy Treatment Center, Box 2816.

ODESSA.—Ector County Crippled Children's Treatment Center, 1021 North Whitaker.

ORANGE.—Orange County Treatment Center, Orange County Hospital.

PHARR.—Cerebral Palsy Treatment Center of Hidalgo County, 108 East Park Avenue.

PORT ARTHUR.—Hughen School, Hughen Hall, 3620 Twenty-Eighth Street.

SAN ANTONIO.—Eloise Japhet School, 305 Austin Street; United Cerebral Palsy Association of Bexar County, 1018 McCullough Avenue.

SHERMAN.—Cerebral Palsy Treatment Center, 610 South Travis.

TAYLOR.—Cerebral Palsy Treatment Program, Box 111.

TEMPLE.—Bell County Society Treatment Center, 216 West Avenue H.

TEXARKANA.—Treatment Program for the Crippled, 304 East Fifth Street.

TYLER.—Tyler Pilot Club Cerebral Palsy Treatment Center, 500 West Locus.

WACO.—Crippled Children's Hospital, 1501 North Eighteenth Street.

WICHITA FALLS.—Northeast Texas Cerebral Palsy Treatment Center, Memorial Auditorium.

Moody State School

In 1951, Texas made another notable advancement in the habilitation of its handicapped children with the creation of the Moody State School for Cerebral Palsied Children in Galveston. Legislative action provided funds for the development and operation of the school, which comes under the jurisdiction of the Board for Texas State Hospitals and Special Schools. Moody is a residential school for educable, treatable cerebral palsied children within the ages of 5 through 12 years. The average length of stay is about one year. The program includes good nursing care, physical therapy, occupational therapy, speech therapy, and special education. It is an independent school district with an accredited school program.

The three primary objectives of the school are (1) intensive therapy and education for the individual child, (2) clinical research, and (3) training of professional personnel. In the area of clinical research, meticulous graphs and records are maintained for statistical analysis, new and original equipment items are developed and tested, and the consultant psychologist and Special Education Department personnel are working jointly on a project to study developmental sequences independently of motor function.

With regard to the training of professional personnel, all students from the Schools of Physical Therapy at the University of Texas Medical Branch and Hermann Hospital in Houston come to the Moody State School for three weeks of clinical practice in cerebral palsy. Graduate therapists from many areas have come in for one month of specialized training so that treatment techniques, records, and equipment items tend to be more uniform throughout the state.

The Moody School depends heavily upon the outpatient treatment programs in the matter of patient referrals. The established policy has been to refer applicants to Moody to an out-patient center nearest their homes for medical examination, therapy, and a home training program. If, after a training period of three months or more, the medical and technical staff feels that the child is eligible for Moody, a referral is then made. Factors of eligibility include the child's ability to progress under treatment and the parents' attitudes and cooperation in performing prescribed exercises at home. A relationship of this kind gives the child immediate opportunity for therapy, allows better screening of the applicants to Moody, and offers some assurance of follow-up treatment when the child is discharged from the residential school.

Other eligibility requirements are that the child be toilet trained and that he be nonconvulsive or free of convulsions for one year prior to admission. Children admitted must be in good physical health in order to participate in the full and intensive program which is offered.

Another Advancement

It was mentioned previously that from 30 to 50 per cent of cerebral palsied children are mentally defective. The state hospital board made another advancement in developing a small cerebral palsy unit at the Austin State School. That program is experimental and limited in personnel and facilities. The purpose of the unit is to help cerebral palsied children committed to the institution become less dependent upon others in matters such as self feeding, ambulation, and use of the toilet. Certainly the knowledge that children, once destined to live a life in bed, are now being grouped together for play and work activities, is gratifying.

Texas may well be proud of the advances which have been made in meeting its problem of cerebral palsy.

CONCLUSION

Steady strides, on a local and state level, have brought help and guidance to thousands of children who once lived in the shadow of the farthest corner. There are still many unmet needs, however, including custodial care for the mentally defective cerebral palsied child or adult and those victims, other than the feeble-minded, who, because of their high degree of physical involvement, will require long-term or possibly lifetime care. Serious consideration should be given to providing intensive therapy and education on a prevocational level to educable, treatable children over 12 years of age followed by vocational training for jobs within the limits of individual physical and mental capacities.

REFERENCES

1. Farthest Corner, Chicago, National Society for Crippled Children and Adults, 1943.
2. McDonald, E. T.: Understand Their Feelings, Crippled Child 32:4, 6, 29 (Oct.) 1954.
3. Report of New York State Joint Legislative Committee to Study Problem of Cerebral Palsy, New York Legislative Document 55, 1949.
4. What Are We Doing for Cerebral Palsied? Dallas, Texas Society for Crippled Children.

EMOTIONAL FACTORS IN INFANCY AND CHILDHOOD

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THE development of emotional patterns in children occurs early, usually before the parents are aware of it.

DIVIDENDS

The first problem to be considered is that of failure to understand that infants and children usually have a cause, instinctive, subconscious, or conscious, for doing what they do. I shall call this the dividend. Children do things on a dividend basis. The elders also work on a dividend basis, but with more plan and finesse than the children, who usually are more direct and often misunderstood. Babies that are well even at 4 to 8 weeks of age may cry for a dividend, usually the attention of the mother or nurse. If the dividend comes repeatedly, the crying may be prolonged. We then may speak of the child as being "spoiled." He is, however, a well educated person using the means at his command to get his dividend. Temper tantrums are dividend getters, securing the mother's attention and cuddling as dividends. These devices sometimes become very big and require an audience—usually they do not occur without one. If dividends are not forthcoming, these two dividend patterns usually will cease.

It behooves the parents to find out what the dividend is and let it accrue to the child for doing more acceptable social acts, in other words, for being a "good" instead of "bad" child. Sometimes it is beyond the ken of parents to determine this desired dividend and they may need help. This principle carries through many behaviors and many years.

The dividend may not be what adults think of as a dividend. Various punishments, such as isolation, spanking, pouting, or martyrdom may be counted by children (and adults) as dividends. Failure to recognize this may cause a continuation, an enlargement, and a multiplication of the behavior.

Generally, recognizing and ceasing to give the dividend will suffice to curb the behavior, as in temper tantrums which usually stop when attention ceases. At times, a "debit" rather than a dividend may hasten stopping such behavior, or to give the dividend and draw out "good" behavior before the unsocial-like behavior takes place may be successful.

CONSISTENCY

The second problem considered is that of consistency or dependability in the environment and attitude. Where this exists, there usually is more security developed and fewer pressure reactions in children. When it is absent, children may become worried, lose a sense of security, have unsolved problems with resulting emotional resentment, and become unhappy. In this group are many children with enuresis; prolonged thumb suckers; loud, boistrous, attention-demanding, insecure children; and stammerers.

If one is to be puritanical part of the time, then he should be consistent. If he is to be easygoing and lackadaisical part of the time, then he should be consistent. To lift the voice and demand and again to ask quietly or suggest puts pressure on children to which they frequently cannot adjust, and tangents develop in their behavior.

Mothers frequently vary in attitude during the day. Children can do many things in the first half of the day without causing much friction, but in the later part of the day, the same actions may result in scenes, scolding, or punishment. The day wears on the parent and the child, and the American home "goes to pot" about 5 o'clock. At times it may be called "nervous exhaustion," "emotional fatigue," or other names. I believe, sometimes at least, that it may be caused by

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a low blood sugar, for the situation usually improves after the evening meal.

Fathers vary more from day to day because they are not with the children almost constantly. One evening a father may be a grand fellow, a good playmate, and enjoy his children, if all has gone well at his place of work. The next day he may come home tired, irritated from having his toes stepped on at his work, and have a headache. He does not enjoy his children nor enter into play or companionship with them, and radiates "Let me read my paper in quietness and solitude." The children are rejected, and this hurts; they may not be able to adjust to such a father's actions. On the third theoretical evening, what will happen? Will they run to him for companionship with the possibility of being hurt by rejection, or will they keep out of the way? At times, they may observe from a distance to see what kind of a father they have this time.

Parents should strive to be consistent and dependable. It is gratifying to see that often there is great improvement in the child's behavior after the parents are given a chance to talk over the problem with someone who is qualified to give educational advice.

HERD PRESSURE

The influence of the gregarious instinct, herd pressure, or gang pressure, must be reckoned with at times. Both children and adults have these pressures. Children need to be accepted, to belong, and to have caste in order to be well adjusted. Lack of this may cause serious trouble—withdrawal tendencies, introvert tendencies, extrovert tendencies, unhappiness, insecurity, and, at times, serious psychotic symptoms. Parents aware of these possibilities may aid in preventing them. I believe we should secure acceptance for children in the group, if possible, without allowing harm to the child or to the parents and without sacrificing our reasonable standards. To make a fetish of this and go overboard is to show lack of values and control.

This pressure is seen in many ages but usually is paramount in the prepuberty, postpuberty, and adolescent ages. Here it may take bizarre forms and even become ridiculous. For parents to remember themselves at these ages will help in understanding. Parents may recall a time when it was "the thing to do" to wear father's shirt with the tail out in order to be accepted and not ostracized. Let the youngsters do it if it is "the thing" that must be done, or else—.

To control this pressure, the group must be controlled without putting pressure on only one member, for this might cause that member to lose caste. The parents of each child in the group usually can change customs if they all plan to do so at one time. This has been proved many times. If the "thing to do" is wrong, dangerous, or has a tinge of immorality, then pressure exerted on the whole group usually will succeed.

LOVE

In my opinion, the greatest thing in preventing behavior problems from arising and increasing emergencies of acute or chronic nature is love in the family. A child in an environment of love, where he is wanted, desired, and welcome, where love percolates and infiltrates, usually can handle his emotional problems. This should be in the whole family, otherwise sides may be taken and great problems arise. This must be genuine love, not talked-about love, for a child has insight and can distinguish the difference. It must be a continuing relationship of words and action. Nothing is so hollow, so rattling, as spoken love alone; it must be lived. You cannot fool a child for long.

Why speak about love of children? Don't we all love our children? I will not deny that, but in some instances, I can testify that if it exists, the children do not know it. The following paragraph is a true example of the manner in which love, or lack of it, affected one youngster:

> A boy of 10, physically perfect, good looking, clean looking, with an expression which seemed to say, "I'm going to be president of something some day," was brought to the doctor because he was a hellion and the "meanest" boy in the neighborhood. He already had been before the juvenile authorities twice for near-criminal acts. The story was secured from his mother, and then the boy was interviewed privately and his confidence gained to some degree. After a time he said, "Doctor, I would run away from home if I could get three meals a day." It was not said with daring, braggadocio, nor as a "smart-alec" remark, but with tears in his eyes. "Why? Why do you want to run away?" asked the doctor. The child answered, "Nobody loves me at my house." At a later talk, his mother was told what he said. Perhaps this was a great mistake, for she took him home and broke a bed slat on him for saying such a thing. Now, six years later, this boy is in a state institution for delinquents for the second time.

I believe this boy might still be salvaged if someone would love him; I sincerely believe that love could have been a salvaging agent when he was 10 years old. Parents need to show that they love their children and continue it at least through adolescence. This is good parent psychology also; it helps both parties. A child does not need smothering love, love that ties him down, nor inhibiting, clinging love, but wholesome, respectful love that allows him some independence, but also some security and dependence if he needs aid.

This is not, by any means, a comprehensive study of all problems in children, but these are of some importance and should not be neglected.

4005 St. Andrews Drive.

PEDIATRICIANS, PSYCHIATRISTS, AND POLICE

DOUGLAS M. KELLEY, M. D., Med. Sc. D., Berkeley, California

DR. DOUGLAS M. KELLEY, *Professor of Criminology, University of California, was one of the special speakers at the 1955 Annual Session of the Texas Medical Association in Fort Worth. This paper was presented before the Section on Pediatrics, April 26.*

ACCORDING to the press of the nation, one of America's major problems is an increasing tendency toward youthful waywardness. I seriously doubt that the problem is as enormous as published reports indicate, but certainly we do have delinquency and the professional groups primarily concerned are pediatricians, psychiatrists, and the police. Usually, the order of involvement is reversed, since the problem child generally erupts first into antisocial acts involving the law. Then follows an increasingly popular trend of action exemplified in the following poem from *Punch:**

> Tom, Tom the piper's son
> Stole a pig, and away he run,
> The pig was missed, and Tom was hissed
> And sent to a psychiatrist.
> —E. V. Knox, "The Mental Care."

Actually, in most cases, the pediatrician, as the child's doctor, should be the first line of defense both by early diagnosis of potential deviation and by early guidance for prevention. This of course may impose an increased burden on a busy physician who, in many instances, would prefer to be a specialist rather than a family counselor. Pediatric psychiatric treatment, however, must begin with the family, since most delinquents demonstrate early neurotic behavior and lack of maturational development. Similar immaturity often also is found in the parents to such degree that the problem may appear hereditary. Actually, no one has specifically demonstrated any true hereditary aspects of immature behavior, and I am reminded of the story of the little boy who was about to be spanked. Just as the hair brush was raised, he yelled, "Stop!" Then he demanded of his father, "Did your dad ever spank you?" The father, somewhat confused, replied, "Of course he did!" The little boy next said, "Did great-granddaddy ever spank granddaddy?" The father said, "I guess so," and the little boy replied, "Dad, let's put an end to this hereditary brutality!"

The pediatrician may refer such a family to a psychiatrist, but in many instances he may spot early instability and help the family remedy the situation during the child's beginning years. After all, no one is quite as competent as the pediatrician to recognize the subtle personal interactions between parent and child. Obviously, here the pediatrician must play the role of the old family practitioner who recognizes Johnny's hives as a situational resentment problem rather than a specific allergy.

The whole field of psychosomatic medicine must be considered from this viewpoint and certainly the pediatrician is first on the scene. Obviously, he also is best equipped to utilize some of the newer therapeutic techniques, for example, the use of benzedrine, or similar analeptics in behavior disorders. It has been found that many children, not necessarily postencephalitic, do better with stimulants than with sedatives, and here a psychologically oriented pediatrician can do extraordinary work. Serpasil, while probably not as successful a drug as present claimants make it, seems to have some value in excited, tense children. Symptoms of signal importance include those of anxiety, possibly marked by uncontrolled aggression, such as temper outbursts, or passive aggression, such as direct refusal to accept routine home or school demands. Prolonged fantasy patterns are important since many child homicides daydream their killings for years prior to the actual event. Unusual preoccupations with sex or fire bear close scrutiny. Ordinarily the parent is unaware of these deep-seated disturbances and complains instead of superficial problems of little import. Reassurance and even treatment of the parent is more useful in these latter cases than therapy directed at the child.

The reason for stressing early difficulties is that delinquent children ordinarily have a history of psychosomatic or tensional symptomatology prior to their aggressive behavior. The alert pediatrician, recognizing some such symptom, can channel the family and child into therapeutic areas early, therefore, I am convinced, preventing many antisocial explosions.

BERKELEY SYSTEM

If the problem does reach upper magnitude, it should be handled locally when possible. In Berkeley, in the last few years we have set up an approach utilizing all agencies which might be in contact with

**The Best Humor From Punch, World Publishing Co., Cleveland and New York, pp. 100-101, 1953. Reproduced by permission of the proprietors of Punch.*

a child. Ordinarily a case is developed either because of a specific offense or because the child seems to be a problem in school. Actually, the school physician should spot many of these children, and here early pediatric evaluation could be of major import. Any child who has trouble is checked comprehensively from a physical and psychologic viewpoint. Many of these children have underlying physical difficulties which can be corrected. Next, police facilities including psychiatric diagnostic techniques and social worker checks are made available to the schools. The schools provide psychologic evaluation and counseling interviews. Eventually a conference is held, and in attendance are the child's classroom teacher, guidance councilor, and school principal, as well as the city school councilors, psychologists, and truant officers. Representing the police are the police psychiatrist and trained juvenile officers who will have had interviews with the family and ordinarily will have visited the home. The entire problem is threshed out and recommendations made to utilize to the fullest all available community resources. All manner of problems are encountered, ranging from childhood schizophrenia through simple behavior difficulty to overt manifestations of character defect. Only when all such facilities are exhausted will a child be referred to county or state authority.

This technique of handling has worked out well, since all records are local and are destroyed when the child reaches legal age. Many persons do not realize that simple childish pranks, if recorded, provide a "criminal background" which may preclude employment later in many areas.

Obviously, the major deficiency in the Berkeley system is a lack of early pediatric medical scrutiny. Our school physicians, overburdened and rushed, simply do not have time for any but the simplest observations. Sometime, I would envision every school as having adequate medical services, and in a Utopian setup, having a child psychiatrist as well as a pediatrician in attendance. Such a notion is so far from reality as to represent gross daydreaming, and all we can do now is to encourage the pediatrician scrutinizing children to alert himself to the problems of character defeat and antisocial trends. Certainly a competent pediatrician can spot the early signs of schizophrenia which lead to the occasional homicide, and the evidences of nervous system instability which eventually yield antisocial and aggressive behavior patterns. If these tendencies are recognized early, treatment is simple. If they are allowed to develop too long, treatment ordinarily is futile.

If we are to reduce to any degree our increasing delinquency problem, the pediatrician must be a major worker in the front line of action. He must maintain a constant vigil for early diagnosis and have reasonable training for adequate medical handling, pharmacologic or psychologic, of these cases.

CASE REPORTS

AN EPIDEMIC of PSITTACOSIS in POULTRY WORKERS
Clinical Evaluation and Treatment

ALBERT McCULLOH, M. D., Brady, Texas

MOST cases of psittacosis occur sporadically through contact with parrots or parakeets. A few epidemics have been reported[5] but the clinical data have not been well documented. In the months of May and June, 1954, an outbreak of psittacosis (ornithosis) occurred in our community, all cases stemming from contact with the virus in a poultry (turkey) processing plant. Some birds from a flock of turkeys brought to the plant subsequently were proved to be diseased, and the virus was isolated by workers from the State Department of Health. Approximately 65 or 70 people, about 75 per cent of all employed in the plant, became ill. Thirty-two of these patients were treated by me and the remainder by colleagues in the city. This report deals with 60 patients in whom the clinical data supported the diagnosis.

Factors concerning the epidemiology of this outbreak will be related in another report.[12]

Read before the Section on Clinical Pathology, Texas Medical Association Annual Session, Fort Worth, April 25, 1955.

CASE REPORTS

CASE 1.—This 63 year old Latin-American man, a poultry processor, entered the hospital with a history of fever, headache, cough, and chills of 24 hours' duration. He complained of moderate tight feeling in the chest. He previously had been in good health. His temperature on admission was 103.4 F. His pulse rate was 88 per minute. Physical examination revealed an acutely ill man who was quite uncomfortable. He had a few fine, scattered moist

rales in the right lung base. Examination was otherwise negative. Urinalysis was negative; a complete blood count revealed 12,200 white blood cells per cubic millimeter with 82 per cent neutrophils. A chest roentgenogram revealed an area of infiltration 4 by 6 cm. in the right lung base which was similar to a viral type pneumonia.

Tetracycline was started in doses of 500 mg. every four hours. After the third day, the dosage was reduced to 250 mg. every six hours. After the third or fourth day, the patient started coughing up blood-streaked sputum. On the fifth day, the area of pneumonia had increased about three times the original size. Fifteen days later, the film showed a marked clearing of the pneumonia in the right lower lobe. Despite the progression of roentgen-ray findings, the patient became afebrile after 72 hours and remained afebrile until he was dismissed on the ninth day of his illness. He took the medication for 11 days. The chest film continued to show clearing and was completely clear six weeks after onset. Agglutination study for the psittacosis–lymphogranuloma venereum group of infections (LGV) was done shortly

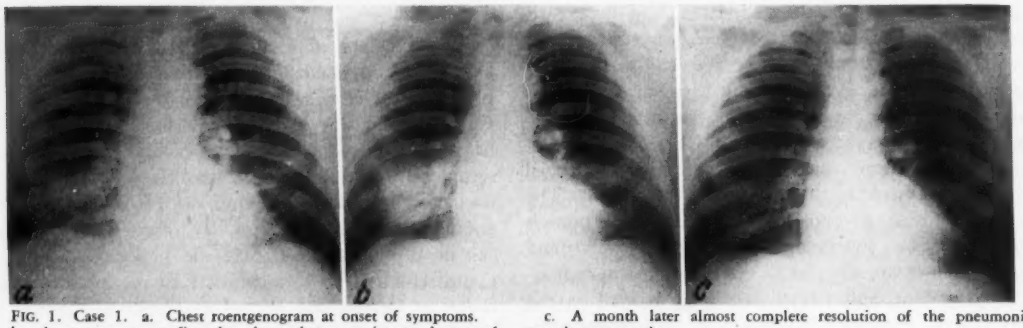

FIG. 1. Case 1. a. Chest roentgenogram at onset of symptoms.
b. A roentgenogram five days later shows an increased area of pneumonia.
c. A month later almost complete resolution of the pneumonic area has occurred.

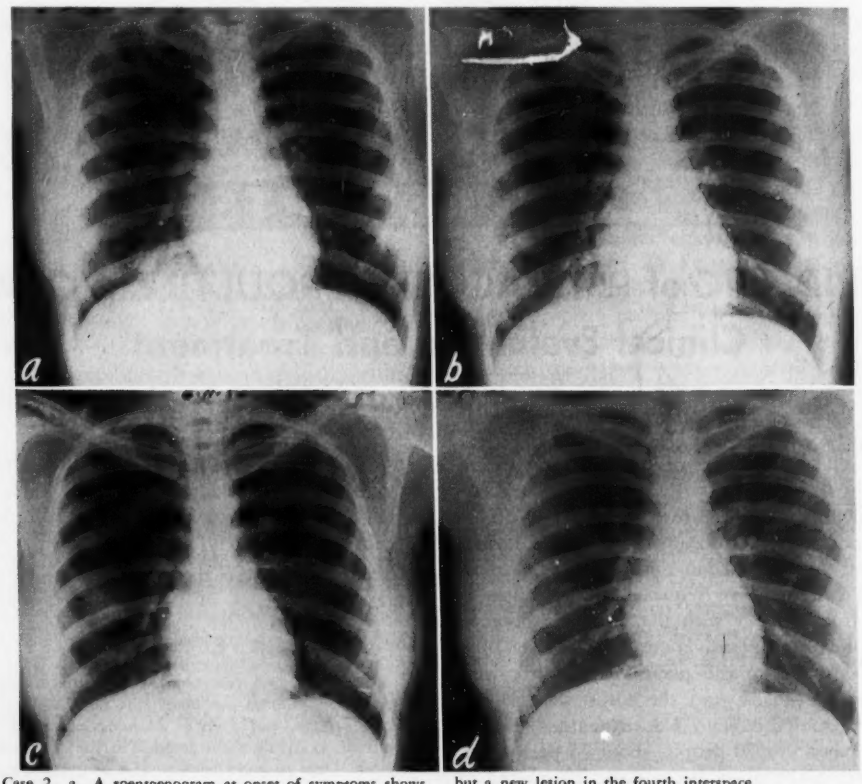

FIG. 2. Case 2. a. A roentgenogram at onset of symptoms shows a pneumonic area in the right cardiophrenic angle.
b. A film made eight days later.
c. Twenty-two days later there is clearing of the original lesion, but a new lesion in the fourth interspace.
d. Thirty-eight days after onset, a roentgenogram shows complete clearing.

after admission of the patient and was found to be negative. It was repeated 15 days after admission and found to be positive, with a titer 1:24 (4 plus); 25 days later it was 1:24 (3 plus); 40 days after admission it was 1:48 (4 plus); and three months after admission it was 1:32 (4 plus).

CASE 2.—A 23 year old Latin-American woman, a poultry processor, became ill 24 hours prior to admission to the hospital with fever, chills, cough, and headache. She was previously in good health and had been working at the poultry plant continuously until the day before admission. Her temperature on admission was 102.4 F. Her pulse rate was 120 per minute. Physical examination revealed only an occasional fine, moist rale in the right lung base. Urinalysis was negative. A complete blood count was done with white cells numbering 11,000 per cubic millimeter with 86 per cent neutrophils and 14 per cent lymphocytes. A chest roentgenogram revealed an area of pneumonitis in the right cardiophrenic angle.

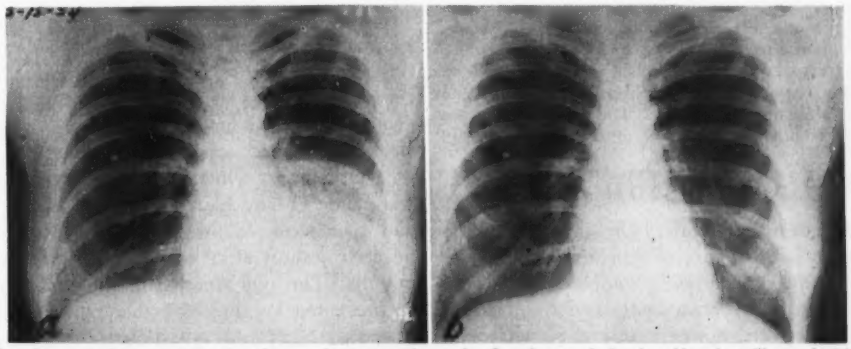

FIG. 3. Case 3. a. A chest roentgenogram shows a large area of infiltration in the lower half of the left lung field. b. Complete resolution is evident in a film made 34 days later.

The patient was started on tetracycline immediately in doses of 500 mg. every four hours; this medication was continued for 72 hours when it was reduced to 250 mg. every four hours. The temperature returned to normal after 72 hours, and the patient was asymptomatic. An LGV agglutination determination was done 13 days after onset of symptoms and was negative. It was done 31 days after onset and was positive in a titer 1:12 (4 plus). This test was not repeated until 90 days after onset of symptoms, at which time the titer was 1:32 (4 plus).

Twenty-two days after onset of symptoms, the patient had a recurrence of fever, chills, and headache and was reexamined. She was found to have a new lesion in the midfield of the right lung. She was again started on tetracycline in similar doses and again responded within 48 hours. She has been seen at frequent intervals since and has no evidence of disease.

CASE 3.—This 41 year old white woman became ill 24 hours before admission to the hospital. She was one of the first employees at the poultry plant to become ill. Her symptoms started with fever and hard chills, and she complained of severe headache. She previously had been in good health. Her temperature on admission was 103 F. Pulse rate was 104 per minute. Physical examination revealed an area of consolidation in the left lung base and fine, moist rales above this area. A chest roentgenogram revealed a large area of infiltration in the left lower lobe, which was similar to viral type pneumonia.

She was started on tetracycline, doses of 500 mg. every four hours. This patient ran high fever for five days and coughed up moderate quantities of blood-streaked sputum. At the end of five days, she became afebrile and remained so until she was dismissed on the tenth day. The patient had a white blood cell count of 15,000 per cubic millimeter, with 92 per cent neutrophils. Urinalysis was negative. LGV agglutination tests were done immediately after

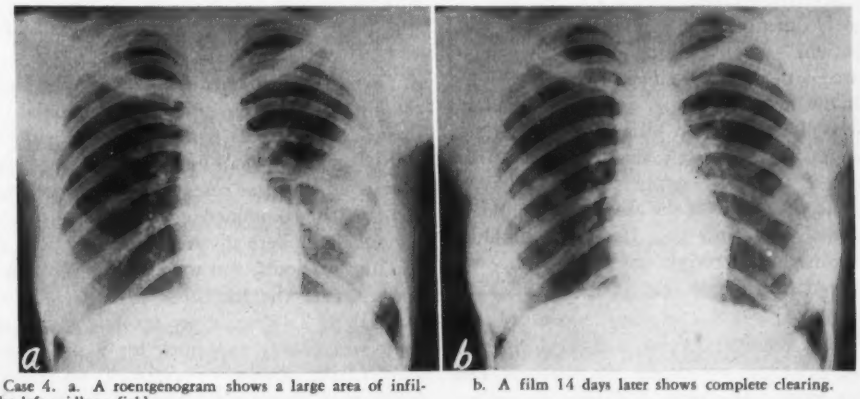

FIG. 4. Case 4. a. A roentgenogram shows a large area of infiltration in the left midlung field. b. A film 14 days later shows complete clearing.

admission and 19 days after admission; both were negative. Thirty-eight days after onset of symptoms agglutination was positive in a titer 1:12 (4 plus); three months after onset of disease, it was still positive, 1:12 (3 plus). Chest roentgenograms showed a gradual resolution of the pneumonia over a period of six weeks, although the patient remained symptom free, except for moderate weakness, after 10 days.

CASE 4.—This 16 year old Latin-American girl, a poultry picker, became ill 48 hours before admission to the hospital, with fever and a slight chilly sensation. She complained of slight headache, but in general felt well. Temperature on admission was 102.2 F. and pulse was 100 per minute. Urinalysis and blood count were both normal; the white blood cell count was 6,500 per cubic millimeter. A chest roentgenogram revealed a wedge-shaped infiltration in the lower lobe of the left lung. Despite the rather large area of pneumonia, this girl coughed little and really felt fine. Her greatest complaint was that she was forced to stay in the hospital and could not be up and about her regular routine. She was started on tetracycline in doses of 500 mg. every four hours. She became afebrile in 48 hours, and the pneumonic process likewise showed rapid clearing. She had no complaints after the second day. Agglutination determinations were negative shortly after admission and also 18 days after onset of disease. The agglutination was positive three months after onset of disease in a titer 1:48 (3 plus).

DISCUSSION

All of the cases were similar. On admission to the hospital nearly all patients complained of a severe muscular aching, headache, photophobia, profuse sweating, a severe backache, and some tightness in the chest. There were, however, several patients who complained little and who had no abnormal physical findings except for fever. Many of these even had roentgen evidence of pneumonia. The fever was uniformly high in most cases, ranging from 102 to 105 F. Only about a third complained of cough, and it was usually slight and nonproductive. Many of the patients with a large area of pneumonitis had little or no cough. Two patients had hemoptysis.

The physical findings were indeed sparse. As is the case in primary atypical pneumonia, auscultation of the chest frequently did not reveal any abnormality. One patient had an effusion of the knee joint, which cleared up without any additional therapy. Aside from the fever, sweating, and prostration exhibited, physical examination usually revealed little. The pulse rates were relatively slow, often less than 100 per minute when the temperature was 103 or 104 F. Later in the course of the disease, as the pneumonia was resolving, moist rales frequently could be heard. Splenomegaly, although carefully sought, was not encountered in a single case.

Laboratory Findings.—Complete blood counts, urinalyses, chest roentgenograms, and agglutination studies were done on practically all patients. The blood counts were within normal limits, except for a few patients with slight leukocytosis. With rare exception, the urinalyses were normal (one new diabetic case was discovered). About three-fourths (42 of the 60 patients) of the patients were found to have roentgen evidence of respiratory tract disease. The most frequently encountered pattern was that of a soft infiltration indistinguishable from primary atypical pneumonia. Another pattern was a diffuse density which was interpreted as being pleural involvement, without effusion. A few patients presented small, rounded areas of infiltration only 3 or 4 cm. in diameter.

Facilities for virus culture were not available in this vicinity. In all our patients, agglutination studies were done for the psittacosis-lymphogranuloma group of infections by the laboratories of the State Department of Health. Early in the epidemic, it was apparent that the agglutination in the first few days of the disease would be negative. In general, the agglutinations became positive 10 to 35 days after the onset of the disease with much variation. Fifty-two of the 60 patients showed a positive agglutination at some time. On many of the patients, the first positive agglutination appeared three months after onset of symptoms, at which time a survey of all patients was made. Many patients did not return for three and four week follow-ups, but 4 patients showed negative serums after 21 days and positive at three months. The agglutination might have been delayed or prevented by antibiotic therapy as has been suggested by Sigel.[10] It was noted, however, that antibodies appeared sooner in the patients who became ill in the latter days of the outbreak, and it is assumed that these patients must have had the virus present in their bodies for some time before the disease manifested itself.

There was a marked variation in the height of the titer to which the agglutination rose. Most were less than 1:64. One went to a 1:768 dilution, however. There seemed to be no relation of the titer to the severity of the disease. The patient (case 3) who had the most extensive disease and was febrile longer had a titer of 1:12.

Therapy and Results.—Because of the similarity of the disease to primary atypical pneumonia, we elected to treat our patients with tetracycline although there had been no previous reports of use of this drug in psittacosis. In most cases, the dosage used was greater than that recommended for most infections. Five hundred mg. were given orally every four hours for the first 48 hours, and thereafter 250 mg. every four hours. After the fourth or fifth day, the dose was reduced to 250 mg. every six hours, and the treatment was usually continued for 9 or 10 days. The temperature returned to normal in 48 hours in practically every case, and rarely did an elevation above

normal occur thereafter. The roentgen evidence of pneumonitis usually would show some clearing in five or six days, and the pneumonitis would be cleared completely in 10 to 20 days. Five cases had clinical and/or roentgen evidence of a relapse, some with new lesions in the lung. The relapses occurred 22 to 28 days after the onset of the original infection. The patients who relapsed were again treated with tetracycline, and again showed a similar response to therapy. There were no deaths. So far as is known, none have any evidence of disease or present sequelae. There were no known instances of transmission of the disease from human to human.

Most of the patients complained of marked weakness after the disease. They were usually hospitalized for 5 to 10 days. Although the patients who had larger, more extensive areas of pneumonia did require a longer time to clear up, they did not complain any more than the ones who had smaller lesions or no pneumonitis. The weakness was protracted in a few individuals, but the evaluation of "weakness," though felt to be genuine in many instances, was difficult to evaluate in some. We have seen no instance of chronic pulmonary disease in any of these people.

COMMENT

There seems little doubt that in this outbreak, the virus was air-borne. It is not conceivable that transmission through a break in the skin, scratch from a bird, and so forth could have been much of a factor as suggested by others.[6] The phases of the processing —mechanical pickers and assembly line method of cleaning and packaging the fowl—also lend support to this method of transmission.

We believe that the incubation period was well established in our cases, since it was later established that the flock of turkeys processed on a given date, May 4, were infected. It must be assumed, however, that the virus remained on the premises in excreta and dust for several days thereafter. We estimated the incubation period to be 8 to 14 days in most cases, but ranging from 6 to 30 days.

Splenomegaly was not a manifestation of the disease in a single case. Maclachlan[7] noted that splenomegaly did not appear until after one week and was then present only a few days. Our patients were nearly all symptom free and most had been dismissed from the hospital at the end of a week. It is reasonable to believe that the antibiotic therapy prevented splenomegaly from developing.

The agglutination studies did not prove helpful in the early stages of treatment. Nearly all of our patients were clinically well when the antibodies were detected. It is definitely thought that antibiotics delayed the appearance of the antibodies. The phenomenon was observed also by Pollard.[9]

Response to treatment with tetracycline appears substantially better than treatment with other antibiotics as reported by others.[1, 2, 3, 4, 8] Whether or not we were dealing with a less virulent strain is not known, but in our hands the drug proved to be definitely superior to any treatment previously reported.

CONCLUSION

Psittacosis (ornithosis) continues to be a public health problem. It should be emphasized that the disease may be clinically indistinguishable from primary atypical pneumonia in the early stages, unless cold agglutinin studies, agglutination studies on the psittacosis–lymphogranuloma venereum group of infections, or viral studies are made. These are usually not done by most practitioners, and many cases of psittacosis may go undiagnosed. With the increasing parakeet population and the increasing incidence of the disease in other birds,[11, 13] it must be assumed that the incidence of the disease will increase in the future.

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ORGANIZATION FORMED TO AID ALCOHOLICS

The Professional Association on Alcoholism, a group to help any person who is an alcoholic, has been organized under the auspices of the Massachusetts Medical Society and the Boston Committee on Alcoholism. Membership is not limited to the New England area, and inquiries concerning membership and programs may be addressed to Dr. David Landeau, Medical Director of the Boston Committee on Alcoholism, 419 Boylston Street, Boston.

NEWS

COMING MEETINGS AND CLINICS

Texas Medical Association, Galveston, April 21-25, 1956. Dr. J. Layton Cochran, San Antonio, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, Clinical Meeting, Boston, Nov. 29-Dec. 2, 1955. Dr. Elmer Hess, Erie, Pa., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

NATIONAL AND REGIONAL

American Academy of Allergy, St. Louis, Feb. 6-8, 1956. Dr. Stanley F. Hampton, St. Louis, Pres.; Dr. Frances C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 3-8, 1955. Dr. Arthur C. Curtis, Ann Arbor, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

American Academy of General Practice, Washington, D. C., March 18-23, 1956. Dr. John R. Fowler, Barre, Mass., Pres.; Mr. Mac F. Cahal, 406 W. 34th St., Kansas City 2, Executive Secy.

American Academy of Obstetrics and Gynecology, Chicago, Dec. 13, 1955. Dr. William F. Mengert, Dallas, Pres.; Dr. C. Paul Hodgkinson, 116 S. Michigan Blvd., Chicago 3, Secy.

American Academy of Ophthalmology and Otolaryngology. Dr. Algernon B. Reese, New York, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, New York, Oct. 8-11, 1956. Dr. Harry Bawkin, New York, Pres.; Dr. E. H. Christopherson, 610 Church, Evanston, Ill., Secy.

American Association for Thoracic Surgery, Miami Beach, Fla., May 7-9, 1956. Dr. Richard H. Meade, Grand Rapids, Mich., Pres.; Dr. Paul C. Samson, 3959 Happy Valley Rd., Lafayette, Calif., Secy.

American Association of Genito-Urinary Surgeons, Oyster Harbors, Mass., June 4-6, 1956. Dr. Norris J. Heckel, Chicago, Pres.; Dr. John A. Taylor, 2 E. 45th St., New York 22, Secy.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons. Dr. Thaddeus L. Montgomery, Philadelphia, Pres.; Dr. F. R. Lock, Bowman Gray School, Winston-Salem, N. C., Secy.

American Cancer Society. Dr. Guy Aud, Louisville, Ky., Pres.; Mr. M. R. Runyon, 47 Beaver, New York, Executive Vice-Pres.

American College of Allergists, New York, April 15-20, 1956. Dr. Lawrence J. Halpin, Cedar Rapids, Iowa, Pres.; Dr. Fred W. Wittich, 401 La Salle Medical Bldg., Minneapolis 2, Secy.

American College of Chest Physicians, Chicago, June 7-10, 1956. Dr. James H. Stygall, Indianapolis, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Physicians, Los Angeles, April 16-20, 1956. Dr. George F. Strong, Vancouver 1, B. C., Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 10-11, 1956. Dr. Warren W. Furey, Chicago, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Secy.

American College of Surgeons. Dr. Alfred Blalock, Baltimore, Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress on Obstetrics and Gynecology. Dr. R. Gordon Douglas, 116 S. Michigan Ave., Chicago 3, Chm.

American Congress of Physical Medicine and Rehabilitation, Atlantic City, N. J., Sept. 10-14, 1956. Dr. Gordon M. Martin, Rochester, Minn., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Dermatological Association, Santa Barbara, Calif., June 18-21, 1956. Dr. V. Pardo-Castello, Havana, Cuba, Pres.; Dr. J. Lamar Callaway, Duke Hospital, Durham, N. C., Secy.

American Gastro-Enterological Association, Atlantic City, N. J., April 27-28, 1956. Dr. Robert Elman, St. Louis, Pres.; Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Mich., Secy.

American Gynecological Society, Washington, D. C., May 21-23, 1956. Dr. Isidor C. Rubin, New York, Pres.; Dr. John I. Brewer, 104 S. Michigan Ave., Chicago, Secy.

American Heart Association. Dr. E. Cowles Andrus, Baltimore, Pres.; Mr. Irving Hexter, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Chicago, Sept. 17-20, 1956. Dr. Ray E. Brown, Chicago, Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, Montreal, Canada, May 15-17, 1956. Dr. Dean M. Lierle, Iowa City, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, N. J., June 18-20, 1956. Dr. J. M. Neilson, Los Angeles, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, Hot Springs, Va., May 31-June 2, 1956. Dr. Alan C. Woods, Baltimore, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association, Banff, Canada, June 20-23, 1956. Dr. Paul C. Colonna, Philadelphia 4, Pres.; Dr. George O. Eaton, 4 E. Madison, Baltimore 2, Secy.

American Pediatric Society, Buck Hill Falls, Pa., May 6-11, 1956. Dr. Allan M. Butler, Boston, Pres.; Dr. A. C. McGuinness, 237 Medical Laboratory, University of Pennsylvania, Philadelphia 46, Secy.

American Proctologic Society, Detroit, June 6-9, 1956. Dr. Stuart T. Ross, Hempstead, N. Y., Pres.; Dr. Karl Zimmerman, 3500 Fifth Ave., Pittsburgh 13, Secy.

American Psychiatric Association, Chicago, April 30-May 4, 1956. Dr. R. Finley Gayle, Richmond, Va., Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association. Dr. Herman E. Hilleboe, Albany, N. Y., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists. Dr. B. B. Sankey, Cleveland, Ohio, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago, Secy.

American Society of Clinical Pathologists, Chicago, Oct. 7-12, 1956. Dr. Emma S. Moss, New Orleans, Pres.; Dr. Clyde G. Culberson, 1040 W. Michigan, Indianapolis 6, Secy.

American Surgical Association, W. Sulphur Springs, W. Va., April 11-13, 1956. Dr. Alfred Blalock, Baltimore, Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison, Chicago 3, Secy.

American Urological Association, Boston, May 28-31, 1956. Dr. George C. Prather, Brookline, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, Annual Meeting, Columbus, Ohio, April 5-7, 1956. Dr. James L. Doenges, Anderson, Ind., Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter. Dr. Arnold S. Jackson, Madison, Wisc., Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, New York, May 21-25, 1956. Dr. Edward T. Fagan, Brooklyn, Pres.; Mrs. Morrell DeReign, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Dec. 11-16, 1955. Dr. Tom B. Bond, Fort Worth, Pres.; Dr. D. S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Washington, D. C., Nov. 12-15, 1956. Dr. Raymond McKenzie, Baltimore, Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association. Dr. John D. Trawick, Louisville, Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, Hot Springs, Va., Dec. 6-8, 1955. Dr. Carrington Williams, Richmond, Pres.; Dr. George Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum. Dr. Henry D. Ogden, New Orleans, Pres.; Dr. Stanley Cohen, 1441 Delachaise, New Orleans, Secy.

Southwest Regional Cancer Conference. Dr. John L. Wallace, Box 1719, Fort Worth, Chm.

Southwestern Medical Association. Dr. Joseph Bank, Phoenix, Pres.; Dr. Celso C. Stapp, 800 Montana, El Paso, Secy.

Southwestern Surgical Congress, Tucson, Ariz., April 16-18, 1956. Dr. C. R. Rountree, Oklahoma City, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Society. Dr. William B. Harrell, Texarkana, Pres.; Dr. Karlton Kemp, 408 Hazel, Texarkana, Ark., Secy.

United States-Mexico Border Public Health Association. Mr. Richard F. Poston, San Francisco, Pres.; Dr. Sidney B. Clark, 314 U. S. Court House, El Paso, Secy.

STATE

Private Clinics and Hospitals Association of Texas, Austin, Dec. 10-11, 1955. Dr. Neil Buie, Marlin, Pres.; Mr. C. H. Rugeley, Wharton, Secy.

Texas Academy of General Practice, Houston, Sept. 16-19, 1956. Dr. J. D. Murphy, Fort Worth, Pres.; Mr. Donald C. Jackson, 308 W. 15th, Austin, Executive Secy.

Texas Academy of Internal Medicine, San Antonio, Dec. 10-11, 1955. Dr. W. W. Bondurant, Jr., San Antonio, Pres.; Dr. George M. Jones, 1314 Medical Arts Bldg., Dallas, Secy. Meetings restricted to members.

Texas Air-Medics Association, Galveston, April 22-23, 1956. Dr. W. A. Ostendorf, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks, Houston, Dec. 8-10, 1955. Dr. Jarrett E. Williams, Abilene, Pres.; Miss Marjorie Saunders, 3500 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Dallas, Feb. 18, 1956. Dr. John Delany, Galveston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American College of Chest Physicians, Galveston, April 22, 1956. Dr. Samuel Topperman, Tyler, Pres.; Dr. J. O. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Club of Internists. Dr. Charles Barrier, Fort Worth, Pres.; Dr. Charles Darnall, Capital National Bank Bldg., Austin, Secy.

Texas Dermatological Society. Dr. E. B. Ritchie, Galveston, Pres.; Dr. Thomas L. Shields, 1216 Pennsylvania Ave., Fort Worth, Secy.

Texas Diabetes Association, Galveston, April 22, 1956. Dr. Mavis P. Kelsey, Houston, Pres.; Dr. Hugo Engelhardt, P. O. Box 2180, Houston, Secy.

Texas Division, American Cancer Society. Mr. Leonard M. Gunderson, Amarillo, Pres.; Mr. Curt W. Reimann, 1609 Colorado, Austin, Acting Executive Director.

Texas Geriatrics Society. Dr. Donald G. Kilgore, Dallas, Pres.; Dr. J. O. S. Holt, Jr., 3707 Gaston Ave., Dallas, Secy.

Texas Heart Association, Galveston, April 22, 1956. Dr. Kleberg Eckhardt, Corpus Christi, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Dallas, April 3-5, 1956. Mr. Boone Powell, Dallas, Pres.; Mrs. Ruth Barnhart, 2210 Main, Dallas, Secy.

Texas Neuropsychiatric Association, Galveston, April 23, 1956. Dr. Stephen Weisz, Dallas, Pres.; Dr. Bruce H. Beard, 1519 Pennsylvania, Fort Worth, Secy.

Texas Orthopedic Association, Galveston, April 23, 1956. Dr. Paul Williams, Dallas, Pres.; Dr. Margaret Watkins, 3629 Fairmount, Dallas, Secy.

Texas Pediatric Society, Oct. 19-20, 1956. Dr. R. J. Blattner, Houston, Pres.; Dr. James N. Walker, 3616 Tulsa Way, Fort Worth, Secy.

Texas Proctologic Society, Galveston, February 18, 1956. Dr. John McGivney, Galveston, Pres. and Secy.

Texas Public Health Association, Fort Worth, Feb. 26-29, 1956. Mr. Ed Riedel, Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, Fort Worth, Jan. 20-21, 1956. Dr. Martin Schneider, Galveston, Pres.; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secy.

Texas Railway and Traumatic Surgical Association, Galveston, April 23, 1956. Dr. A. O. Singleton, Jr., Galveston, Pres.; Dr. W. D. Marrs, 306 Broadway, Fort Worth, Secy.

Texas Rheumatism Association, San Antonio, Dec. 9, 1955. Dr. Charles H. Cornwell, Marlin, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society for Mental Health, San Antonio, March 1-3, 1956. Dr. Abe Hauser, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Acting Executive Secy.

Texas Society of Anesthesiologists, Galveston, April 22, 1956. Dr. Joe B. Wood, Dallas, Pres.; Dr. Milton M. Rosenzweig, 200 Wildwood Dr. E., San Antonio, Secy.

Texas Society of Gastroenterologists and Proctologists, Galveston, April 23, 1956. Dr. W. T. Arnold, Houston, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Galveston, 1955. Dr. A. E. Jackson, Fort Worth, Pres.; Dr. Gatlin Mitchell, 1604 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Pathologists. Dr. C. B. Sanders, Houston, Pres.; Dr. M. H. Grossman, St. Paul Hospital, Dallas, Secy.

Texas Surgical Society, Fort Worth, April 2-3, 1956. Dr. P. I. Nixon, Sr., San Antonio, Pres.; Dr. Albert W. Hartman, 414 Navarro, San Antonio 5, Secy.

Texas Tuberculosis Association, Midland, April 6-7, 1956. Mrs. Joella Terrill Buder, Wichita Falls, Pres.; Miss Pansy Nichols, 2406 Manor Rd., Austin, Executive Secy.

Texas Urological Society, Austin, February 26-27, 1956. Dr. A. J. Ashmore, Corpus Christi, Pres.; Dr. Rex Carter, 1709 San Antonio, Austin, Secy.

DISTRICT

First District Society, Pecos, Feb. 16, 1956. Dr. Delphin von Briesen, El Paso, Pres.; Dr. W. G. Morrow, Jr., First National Bldg., El Paso, Secy.

Second District Society, Odessa, April 19, 1956. Dr. T. W. Novak, Odessa, Pres.; Dr. Willis T. Carson, 506 North Allegheny, Odessa, Secy.

Third District Society. Dr. M. C. Overton, Jr., Pampa, Pres.; Dr. William Klingensmith, 215 Fisk Bldg., Amarillo, Secy.

Fourth District Society, San Angelo, 1956. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July 6-7, 1956. Dr. E. Jackson Giles, Corpus Christi, Pres.; Dr. Maurice Nast, 1126 3rd, Corpus Christi, Secy.

Seventh District Society. Dr. John R. Rainey, Jr., Austin, Pres.; Dr. Leslie C. Colwell, 1410 Brazos. Austin. Secy.

Eighth District Society, Brazoria, 1956. Dr. Carlos Fuste, Alvin, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.

Ninth District Society, Baytown, March 29, 1956. Dr. Joseph T. Dabney, Livingston, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, Secy.

Tenth District Society. Dr. J. C. Klein, Lufkin, Pres.; Dr. Rider Stockdale, Jasper, Secy.

Eleventh District Society. Dr. Porter Bailes, Tyler, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.

Twelfth District Society, Bryan, January 10, 1956. Dr. Van D. Goodall, Clifton, Pres.; Dr. J. H. Johnson, 304 South 22nd, Temple, Secy.

Thirteenth District Society. Dr. P. M. Kuykendall, Ranger, Pres.; Dr. Robert D. Moreton, 815 Medical Arts Bldg., Fort Worth, Secy.

Fourteenth District Society. Dr. J. David Thomas, Denton, Pres.

Fifteenth District Society, Marshall, 1956. Dr. James Harris, Marshall, Pres.; Dr. L. E. Rutledge, Daingerfield, Secy.

CLINICS

Dallas Southern Clinical Society, Dallas, March 12-14, 1956. Dr. Alvin Baldwin, Jr., Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 23-25, 1956. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.

New Orleans Graduate Medical Assembly, New Orleans, Feb. 27-March 1, 1956. Dr. Donovan C. Browne, New Orleans, Pres.; Dr. Maurice E. St. Martin, Room 103, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference. Dr. E. C. Bebb, Broad, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference. Miss Alma F. O'Donnell, 512 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas. Dr. C. Forrest Jorns, 5644 Lawndale, Houston, Secy.

State Tumor Conference, Wichita Falls, April 4, 1956. Dr. Bailey R. Collins, 925½ Scott, Wichita Falls, Director.

BOARD EXAMINATIONS

Texas State Board of Examiners in Basic Sciences. Mrs. Betty Ratcliff, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

Texas State Board of Medical Examiners. Dr. M. H. Crabb. 1714 Medical Arts Bldg., Fort Worth, Secy.

American Cancer Society, Texas Division

Two full days of activity were held in Austin when the Texas Division of the American Cancer Society met December 1 and 2. The program included three general sessions, the president's address, discussion groups, two luncheons, the president's reception, and the annual dinner.

Featured guest speaker for the occasion was Dr. G. V. Brindley, Temple, president of the American Cancer Society. Dr. Brindley, the first Texan ever to be elected to this position, was installed during ceremonies in New York early in November. He is a former chairman of the executive committee of the Texas Division, and still is an active member of the committee. He has served the national organization as a member of its board of directors and as chairman of its medical and scientific committee. He is a past president and now a Trustee of the Texas Medical Association.

Other guests included Dr. Chauncey Bly, professor of pathology and oncology at the University of Kansas Medical Center, and Lon Sullivan, executive vice-president of the Georgia Division.

New officers of the Texas Division are Leonard M. Gunderson, Amarillo, president; Miss Ethel Foster, Sterling City, lay vice-president; Philip R. Overton, Austin, secretary; Raymond Gee, Fort Worth, treasurer; Dr. Porter Brown, Fort Worth, medical vice-president and chairman of the executive committee; and Travis T. Wallace, Dallas, chairman of the board of directors. Physicians who are new members of the executive committee are Drs. Robert Moreton, Fort Worth; Grant Taylor, Houston; and Irving M. Richmond, Beaumont.

Doctors Raise Big Families

Despite the rigors of medical practice, physicians are family men, points out a survey in the October, 1955, issue of *Medical Economics*. The survey, conducted by the publication, shows that the typical medical father has three children, and that 18 per cent have four or more children.

Military Service Prospects for Interns and Residents

The needs of the military services for medical officers from July 1, 1956, to June 30, 1957, will be of such magnitude as to require active duty of all interns upon completion of their internships and of residents who have not satisfied their military liability, and perhaps of some liable physicians of Priority III who are older and who may be established in practice, the National Advisory Committee to the Selective Service System has reported.

In view of this development it will not be possible to support deferment for any current interns for residency training except those included in the Department of Defense's Residency Consideration Program and perhaps some in most exceptional situations necessary to the national health, safety, or interest. Other interns and residents not in the Residency Consideration Program in general will be called by Selective Service as needed throughout the year 1956-1957 unless they voluntarily obtain commissions.

The President probably will direct the Selective Service System to issue calls for physicians to enter service during the course of the hospital year—possibly in October, 1956, and January and April, 1957.

The Residency Consideration Program has been developed by the Selective Service System and the Department of Defense to permit the commissioning of physicians vulnerable for military service under the regular draft well in advance of the time they will be required to serve, and to provide that certain participants, upon the completion of their internships, may be deferred for one, two, or three years of residency training in specialties required by the Armed Forces.

To be eligible a physician must be

1. A 1955 graduate of an American or Canadian medical school approved by the Council on Medical Education and Hospitals of the American Medical Association.
2. Liable for two years of military service under the regular draft. (If a physician has already performed his obligated service or for any reason is not subject to reclassification to I-A or I-A-O by his Selective Service local board upon completion of his internship, he is not eligible to participate in this program.)
3. Willing to apply for and accept a reserve commission in either the Army, Navy, or Air Force.

Those interested in applying for deferment under this program should request a "Statement of Service Preference," SD form 249, from the Assistant Secretary of Defense (Health and Medical), The Pentagon, Washington 25, D. C.

PERSONALS

Dr. Truman G. Blocker, Jr., Galveston, has been appointed a member of the executive committee of the International Society of Plastic Surgeons.

Drs. J. E. Kanatser and *Jack E. Maxfield,* Wichita Falls, have been elected to fellowship in the International College of Surgeons.

Dr. William M. Blair, Wharton, presented a scientific paper at the September meeting of the Southwestern Surgical Conference in Kansas City.

Drs. Clyde A. Stevenson, formerly of Temple, and *Arthur R. Watson,* Temple, reported their findings regarding fluorinated water at the annual meeting of the Roentgen Ray Society in Chicago in September.

Three Dallas physicians, *Drs. W. F. Guerriero, M. H. Grossman,* and *Charles L. Martin,* made addresses at the eighth annual meeting of the Southwest Louisiana Graduate Medical Assembly held in Lake Charles in mid-September.

Dr. Willard R. Cooke, Galveston, spoke at the annual session of the Michigan State Medical Society in Ann Arbor late in September.

Dr. G. W. N. Eggers, Galveston, addressed the Omaha Midwest Clinic Society late in October.

Dr. William B. Dean, Dallas, has been elected chairman of the board of trustees of Garrett Brothers, Inc., investment bankers.

Dr. H. Reid Robinson, Galveston, was honored with a coffee in recognition of his half century of service at the University of Texas Medical Branch. He is clinical professor of obstetrics and gynecology.

Dr. Claurice M. Phillips, Levelland, has been elected a vice-president of the University of Texas Dads' Association.

Portraits of physicians have been given to three Texas hospitals. Medical colleagues of *Dr. Henry M. Winans, Sr.,* recently retired chief of the medical staff at Baylor Hospital, Dallas, presented a portrait of the doctor to the hospital. In the Methodist Hospital, Lubbock, hang pictures of three physicians who were instrumental in establishing the hospital, *Drs. Julius T. Krueger, J. T. Hutchinson,* and the late Dr. Marvin C. Overton. A portrait of the late Dr. Joe Gilbert, who helped to establish the first St. David's Hospital in Austin, now hangs in the lobby of the new St. David's Hospital.

Dr. Carleton B. Chapman, Dallas, is the state chairman for a memorial fund honoring the late Dr. T. Duckett Jones. The fund will aid young scientists seeking research careers in rheumatic fever and related fields.

Two Austin physicians, *Drs. John Dale Weaver* and *W. Charles Gauntt,* appeared on the program of the fourth annual Pharmacy Refresher Course at the University of Texas November 11.

Dr. Emma Varnerin is the new assistant physiatrist to the medical director of the Gonzales Warm Springs Foundation for Crippled Children.

Dr. Robert E. Cone, Jr., 26, son of the late *Dr. Robert Earl Cone* and Mrs. Cone, Galveston, died October 8 in Houston. He was a 1955 graduate of the University of Texas Medical Branch.

Mary Lucinda Snyder, aged 4, daughter of *Dr. and Mrs. Ned A. Snyder, Jr.,* Brownwood, died October 7 of leukemia. Dr. Snyder is president of the Brown-Comanche-Mills-San Saba Counties Medical Society.

New parents of girls are *Dr. and Mrs. F. C. Pannill, Jr.,* Corsicana; *Dr. and Mrs. William J. Powell,* Galveston; *Dr. and Mrs. Patrick H. McKay,* San Antonio; *Dr. and Mrs. Carl J. Fuchs,* Texas City; and *Dr. and Mrs. Charles R.* Heare, Dallas.

Boys were born to *Dr. and Mrs. Lawrence R. Rodgers,* September 27, Houston; and *Dr. and Mrs. Norman E. Halbrooks,* September 28, Galveston.

Ophthalmology and Otolaryngology Seminar

The Tenth Annual University of Florida Midwinter Seminar in Ophthalmology and Otolaryngology will be held in Miami January 16 through 21. All registrants will be invited to attend the midwinter convention of the Florida Society of Ophthalmology and Otolaryngology on the afternoon of January 18. The ophthalmology lecturers who will speak on January 16, 17, and 18, are Drs. Francis H. Adler, Philadelphia; A. Gerard DeVoe, New York; Michael J. Hogan, San Francisco; C. Wilbur Rucker, Rochester, Minn.; and A. D. Ruedmann, Detroit. Lecturers in otolaryngology, who will present papers on January 19, 20, and 21, are Drs. Frederick A. Figi, Rochester, Minn.; Lewis F. Morrison, San Francisco; Charles E. Kinney, Cleveland; John E. Lindsay, Chicago; and Bernard J. McMahon, St. Louis.

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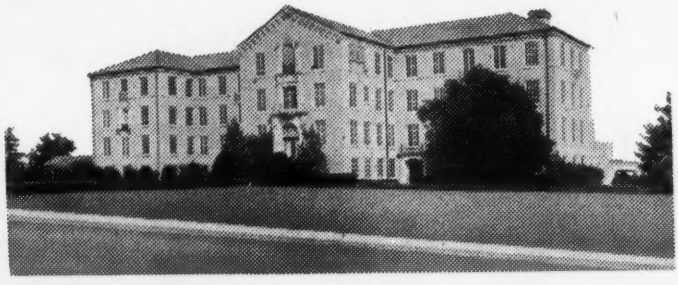
Chas. L. Bloss, M. D. }

Howard M. Burkett, M. D., Associate Psychiatrist
James K. Peden, M. D., Associate Psychiatrist
C. L. Jackson, M. D., Resident Psychiatrist

Mrs. Anne Gilcrease, R. N., Director of Nurses
Ralph M. Barnette, Jr., Business Manager
Miss Geraldine Skinner, Director Occupational Therapy



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Clyde W. Parsons, M.D., Orthopedics
R. A. Mitchell, D.D.S., F.A.C.D., Oral Surgery
E. E. Stewart, D.D.S., Oral Surgery

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Bertha McNeill, Administrator

Southern Medical Association Elects Texans

Dr. Denton Kerr, Houston, is the new second vice-president of the Southern Medical Association, and Mrs. O. W. Robinson, Paris, has been chosen president-elect of the Woman's Auxiliary.

Other Texans who played a big part in the mid-November Southern Medical Association meeting in Houston are Dr. Robert D. Moreton, Fort Worth, who succeeded Dr. Milford O. Rouse, Dallas, as councilor from Texas, and 10 Texans who were elected section officers. They are Dr. A. Ford Wolf, Temple, chairman, allergy; Dr. Everett R. Seale, Houston, chairman, dermatology and syphilology; Dr. J. O. S. Holt, Jr., Dallas, vice-chairman, general practice; Dr. Robert A. Wise, Houston, vice-chairman, industrial medicine and surgery; Dr. Martin L. Towler, Galveston, secretary, neurology and psychiatry; Dr. Garth L. Jarvis, Galveston, chairman, obstetrics; Dr. Arild E. Hansen, Galveston, chairman, pediatrics; Dr. Oscar O. Selke, Jr., Houston, secretary, physical medicine and rehabilitation; Dr. J. Wade Harris, Houston, secretary, proctology; and Dr. Thomas P. Shearer, Houston, vice-chairman, urology. Mrs. Seward H. Wills, Houston, continues as council woman for Texas.

More than 4,500 persons, including about 1,300 Texans, attended the meeting. Specialty societies convening conjointly with the SMA were the American College of Chest Physicians, Southern Chapter; Association for Research in Ophthalmology, Southern Section; Southern Gynecological and Obstetrical Society; College of American Pathologists, Southeastern and South Central Regional Committees; and the Southern Society of Cancer Cytology. In addition, there were numerous social events and several conducted tours of the Texas Medical Center and other Houston medical facilities. The Woman's Auxiliary also had a full program.

Dr. Raymond McKenzie, Baltimore, was installed as president. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., was chosen president-elect, and Dr. W. K. West, Oklahoma City, was elected first vice-president. The new chairman of the council is Dr. J. Morris Reese, Baltimore.

Dr. Kerr, a member of the Board of Trustees of the Texas Medical Association, was chairman of general arrangements in Houston. Mrs. Robinson, who has been active in the Southern Woman's Auxiliary for many years, has just completed a term as vice-president and also served as chairman of the committee on membership. She also is a Past President of the Woman's Auxiliary to the Texas Medical Association, and has served that group as a Council Woman for District 14, Vice-President, and chairman of the Committee on Memorial Services.

The next meeting of the Southern Medical Association will be its "Golden Anniversary" meeting, and will be held November 12-15, 1956, in Washington, D. C.

WORLD MEDICAL ASSOCIATION

Health insurance was a key topic discussed at the recent meeting in Vienna of the World Medical Association. The few controversial points were openly discussed in meetings, and among those expressing opinions were Dr. F. J. L. Blasingame, Wharton, Trustee of the American Medical Association, and Dr. Dwight Murray, President-Elect of the AMA.

New officers of the World Medical Association are Dr. Karl Niederberger, Austria, President; Dr. A. Fernandez-Conde, Cuba, President-Elect; and Drs. L. A. Hulst, Holland; Dag Knutson, Sweden; and Sir Lionel Whitby, United Kingdom, new council members. Dr. Gunnar Gunderson, U. S. A., was elected vice-chairman of the council.

The Tenth General Assembly will be held in Havana, Cuba, and registration day will be October 9, 1956.

Searchlight on TB

"Searchlight on TB," a program sponsored by the Texas Tuberculosis Association and now nearing completion, may help to lower the incidence of the disease in Texas. Its purposes are to review the advances against tuberculosis to date, to take stock of existing measures for its control, to consider what remains to be done toward eradicating the disease in Texas, and to chart specific moves for reaching this goal.

"Searchlight on TB" began its work at the county level, and through area and county meetings, nearly 4,000 persons were reached directly.

The project was activated in the spring of 1954 with the approval and co-sponsorship of 14 other state organizations interested in tuberculosis, including the Texas Medical Association. The search for information was to revolve around six main sections: (1) health facilities and services, (2) finding the patients, (3) hospitalizing the patient, (4) returning the patient to normal productive life, (5) meeting economic needs, and (6) informing the public.

Help Fight TB

Buy Christmas Seals

Although a final report is not yet available, a preliminary report by the advisory committee headed by Dr. Carl A. Nau of Galveston pointed out that "Searchlight on TB" has revealed the need for (1) the team approach in tuberculosis control and eradication; (2) chest roentgenograms in all hospital admissions, chest clinics, and an improved system of reporting; (3) provision for the economic needs of the patient and his family and effective care and follow-up of the patient; (4) planning for rehabilitation as soon as the diagnosis is made; (5) official, nonofficial, and voluntary agencies to join in planning and working with the patient and his doctor for effective vocational rehabilitation; (6) more health units and more well qualified and participating personnel; and (7) adequate funds, education, and consciousness of personal responsibility.

PROCTOLOGY AWARDS AVAILABLE

The International Academy of Proctology will award a $100 cash prize for the best unpublished contribution on proctology or allied subjects. A certificate of merit will be awarded to the second place winner of the Annual Cash Prize and Certificate of Merit Award Contest. Entries are limited to 5,000 words, must be typewritten, and must be submitted in five copies no later than February 1, 1956, to the International Academy of Proctology, 147-41 Sanford Avenue, Flushing, N. Y.

Medical School Enrollment in Texas

The University of Texas Medical Branch (including the School of Nursing) reported an increase of 13 students, making the total enrollment this year 1,292. At Dallas, the University of Texas Southwestern Medical School's near-capacity enrollment of 406 represented an increase of one student.

HELP FOR THE DEAF CHILD

The importance of early diagnosis of hearing impairments was emphasized by Mrs. Spencer Tracy at a recent dinner meeting of the board of trustees of the Houston Council for Deaf Children. Mrs. Tracy, a pioneer in the methods of early special training for deaf children, pointed out that physicians are in an excellent position to detect hearing defects, even by simply asking an infant's mother about his response to sounds at home. Programs of special help at home or at special education centers may be begun as soon as the severity of the hearing loss is properly diagnosed.

Once a child reaches school age without having had special instruction, he has lost several years of specialized training at the optimum learning age, and thus may be unable to keep pace with his peers or to benefit from normal academic curriculum.

Physicians who are members of the board of trustees of the Houston Council for Deaf Children are Drs. Russell J. Blattner, Fred R. Guilford, and Henry A. Peterson.

TEXAS GERIATRICS SOCIETY

Dr. G. N. Burch, professor of Internal Medicine at Tulane University, New Orleans, La., will be the guest speaker at the January 8 meeting in Houston of the Texas Geriatrics Society. The program will be presented as follows:

Blood Diseases More Common in the Aged—Dr. Robert A. Hettig, Houston.
Hypertension in the Geriatric Patient—Dr. John Moyer, Houston.
Roentgenographic Findings in Chest of Aged Patients—Dr. Lynn Doubleday, Houston.
Senescent Changes in Stomach—Dr. Vincent Collins, Houston.
Types and Treatment of Infections in Aged Patients—Dr. Ellard M. Yow, Houston.
Management of Heart Disease in the Aged—Dr. G. N. Burch, New Orleans.
General Treatment of the Geriatric Patient—Dr. Frederick G. Dorsey, Houston.
Rehabilitation of the Aged—Dr. John B. Mahney, Houston.
Pulmonary Diseases in Geriatric Patients—Dr. Daniel E. Jenkins, Houston.
Approach to Sex Problems in the Aged—Dr. Lewis C. Mills, Houston.
Nutritional Requirements of Aged People—Dr. Raymond Gregory, Galveston.
Mental Problems in the Aged—Dr. William Lhamon, Houston.
Senescense in Executives in Industry—Dr. Henry A. Cromwell, Houston.

A business meeting will be held at noon for the election of officers and to choose a meeting place for the 1957 meeting.

American College of Surgeons

Regional meetings of the American College of Surgeons will be held in Jacksonville, Fla., January 16-18; Philadelphia, February 13-16; Milwaukee, February 27-29; Colorado Springs, March 5-7; Little Rock, March 12-13; and Edmonton, Alberta, April 23-25. These meetings are planned by local committees aided by the college. The medical profession at large may attend any of the six meetings. Full information and programs may be obtained from Dr. H. Prather Saunders, Associate Director, American College of Surgeons, 40 East Erie, Chicago 11.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY EXAMINATION

The next scheduled examination, Part 1, which is the written examination and review of case histories, for all candidates of the American Board of Obstetrics and Gynecology will be held in various cities February 3. Doctors receiving notification of eligibility are to send 20 case abstracts as soon as possible to the Secretary, Dr. Robert L. Faulkner, 2105 Adelbert Road, Cleveland 6.

INSTITUTE FOR CLINICAL RESEARCH

Recognizing the limitations of specialized knowledge, time, and physical facilities not available to the individual academic or medical research worker, a group of Austin scientists have organized the Institute for Clinical Research. The group will undertake projects which overlap the normal scope of work of the individual biological and clinical specialists, for example, biochemists might enlist the aid of physician members in testing new compounds for effect upon various human pathological conditions.

Proposed projects for cooperative research may be reviewed by the members at the regular meetings on the third Thursday of each month. Membership is not limited to Austin residents. Information may be obtained from the secretary of the executive committee, E. M. Lansford, Jr., Ph. D., research scientist at the Biochemical Institute, University of Texas, Austin.

Physicians who are members of the institute's advisory board or executive committee include Drs. James A. Bethea, S. W. Bohls, Henry A. Holle, E. H. LaBrosse, J. R. Rainey, Jr., J. O. Ravel, J. C. Rude, and Edward Zidd.

Rural Health

Medical care in rural areas and the education of public health personnel were this year's subjects for the technical discussions held during the eighth meeting of the Pan American Sanitary Organization's Directing Council, which also acts as the Regional Committee of the World Health Organization. Most of the discussion on training of public health personnel was focused on in-service training, and some closely related points, including problems of recruitment, stability of appointments, and the creation of a true public health career system were also mentioned.

Also concerned with rural health is the American Medical Association; its Council on Rural Health has made plans for the Eleventh Annual National Conference on Rural Health to be held in Portland, Ore., March 8-10. The conference will take up such subjects as the family and the physician, mental health, problems of aging, health insurance, and other health topics of interest to rural groups.

MONEY FOR MEDICAL RESEARCH

Reports from Washington indicate that the Eisenhower administration next year can be expected to ask Congress for substantially more money than ever before for medical research, both direct research by scientists on the United States payroll and grants to others.

The Washington Office of the American Medical Association points out that the federal government currently is spending more money on medical research than at any time in history. The National Institutes of Health alone receive almost $98 million, and other millions are being spent on medical research in the Department of Defense, Veterans Administration, and other agencies.

This year, the National Cancer Institute is operating on $24.8 million, about $3 million more than last year. The National Heart Institute also is working on a much more liberal budget, $18.7 million in contrast to last year's $16.6 million. Grants in other fields of medical research have increased proportionately.

Addressing a conference on antibiotics, Secretary of the Department of Health, Education, and Welfare, Marion B. Folsom, said that the United States is now spending more than 12 times more on medical research than it was spending in 1946. He added, "We must seriously consider making even more funds available for medical research to bring even greater benefits to humanity."

Harrison County Doctors Inoculate All Children

The Harrison County Medical Society has sponsored a project to inoculate all children enrolled in public, parochial, or private schools in the county with poliomyelitis vaccine free of charge. The society at the request of the local chapter of the National Foundation for Infantile Paralysis provided the professional assistance for the foundation's program of inoculating the first and second grade school children. The program met with such success that the society decided to extend the inoculations to include all school age children.

The society's offer to the public was to give the primary immunization of two injections without cost to all children enrolled in any school in the county provided the vaccine could be made available, provided it could be done on a mass scale so as not to be too time consuming, and provided other community resources could be made available. These were all forthcoming.

All facilities of the schools were made available, and the vaccine was obtained from the Texas State Department of Health, with the county being designated as a study area. Also, the State Polio Vaccine Advisory Committee amended its priority recommendation so as to include all school age children in Harrison County.

The society completed the program early in December and its president, Dr. James H. Harris, Marshall, reports excellent public response. There have been no untoward reactions and no cases of poliomyelitis in inoculated children.

Postgraduate Courses

Pediatric Allergy, Houston, December 8 through 10. This course was presented by the University of Texas Postgraduate School of Medicine in cooperation with the Baylor University College of Medicine. Dr. Jerome Glaser, Rochester, N. Y., was guest lecturer, and panels each day considered and discussed cutaneous manifestations, basic mechanisms in allergy, allergic rhinitis, respiratory manifestation, and use of steroids in allergy.

Radiological Physics, Houston, October 6 through April 3, 1956. Lectures are held each Thursday afternoon from 5 until 6 p. m., and each will cover a different phase of radiological physics. The course is sponsored by the University of Texas Postgraduate School of Medicine.

Surgery, Dallas, December 8, 9, and 10. This course dealt with various aspects of surgery including preparation of patient and possible complications, including surgical infections. The course was taught by staff members of the University of Texas Southwestern Medical School.

Symposium on Tuberculosis and Other Pulmonary Diseases in Childhood—March 12 through 16 and June 4 through 8, Postgraduate Medical School of New York University, Bellevue Medical Center. The course will include seminars and lectures on tuberculosis, pneumonia, and chronic chest diseases in childhood. The values of bronchoscopy, roentgenography, and various surgical techniques will be discussed and demonstrated. This is a full time course, and will be under the direction of Dr. Edith M. Lincoln and Dr. Margaret M. H. Smith. Information may be obtained from the Office of the Dean, 550 First Avenue, New York 16.

Recent Advances in Tuberculosis in Children—January 12 through March 29, New York University, Bellevue Medical Center. This course, given under the direction of Dr. Edith M. Lincoln and Dr. Margaret M. H. Smith, is designed for general practitioners or pediatricians interested in the diseases of the chest in infants and children. It will include a comprehensive survey covered by lectures and clinics in the Out-Patient Department and patient rounds on the wards of the Children's Medical Service of Bellevue Hospital. For further information, write to the office of the Dean, 550 First Avenue, New York 16.

Diabetes and Basic Metabolic Problems.—January 25 through 27, Dallas. The course, sponsored by the American Diabetes Association, will be directed by Dr. Edwin L. Rippy, Dallas, and is offered in cooperation with the University of Texas Southwestern Medical School, the Dallas Academy of Internal Medicine, and the Dallas Diabetes Association. Registration fee is $75 for nonmembers of the American Diabetes Association, and $40 for members. The Executive Director, 1 East Forty-Fifth, New York 17, can supply programs and full details.

Visiting Professorship Established

A Visiting Professorship of Medicine has been established at the Baylor University College of Medicine by Ben Taub and Sam Taub, Houston, in memory of their parents, Mr. and Mrs. J. N. Taub.

Dr. C. C. Sturgis, professor and chairman of the Department of Medicine, University of Michigan School of Medicine, will be the first visiting professor, and will be in Houston during the week of January 22-27. He will conduct many activities regularly scheduled by the Department of Medicine for the students, residents, and staff, and will give one evening lecture. He is a recent past president of the American College of Physicians.

STATE HEALTH JOBS OPEN

Positions are now open in the Texas State Department of Health, and will be filled by applicants who successfully complete the Merit System Council examinations. The positions include director associate, Tuberculosis Division, and senior pediatric consultant.

For application and information, physicians may write to the Merit System Council, 814 Littlefield Building, Austin.

State Hospital Gets New Building

At the dedication services of the new Medical and Surgical Building at the Austin State Hospital on October 11, Dr. Titus Harris, Galveston, gave the professional address. Dr. Edgar Ezell, Fort Worth, introduced him.

Southwestern Medical Association

The Southwestern Medical Association met in Phoenix, Ariz., November 16 through 18. Guest speakers included Drs. L. Kraeer Ferguson, and William E. Ehrich, Philadelphia; Edward H. Rynearson and John W. Kirklin, Rochester, Minn.; Hans H. Hecht, Salt Lake City; Ignacio V. Ponseti, Iowa City; J. Walter Wilson, John L. Webb, Ph. D., and Reginald H. Smart, Los Angeles; and Kenneth L. Roper, Chicago.

Symposium topics included regional enteritis and enterocolitis; orientation of massive bleeding from the upper alimentary tract; experience with subtotal gastrectomy in the management of peptic ulcer: postgastrectomy sequelae; prevention of malignant neoplasm of the gastrointestinal tract; and surgical evaluation of acquired heart disease.

The increase in the number of benign polyps detected in patients has been in direct proportion to the number of sigmoidoscopic examinations performed regardless of symptomatology.—N. W. Swinton and W. A. Doane in CA, published by the American Cancer Society *4*:78 (May) 1954.

PAN AMERICAN CONGRESS OF OPHTHALMOLOGY

The Fifth Pan American Congress of Ophthalmology will meet in Santiago, Chile, January 9 through 14. Panels of physicians representing all the Americas will discuss glaucoma, collagen diseases, infantile glaucoma, secondary glaucoma, strabismus, detachment of the retina, psychosomatic ophthalmology, tropical diseases of the eye, physiopathology and surgery of the crystalline lens, plastic surgery, visual fields and neuro-ophthalmology, and intraocular tumors. Further information may be obtained by writing Dr. Daniel Snydacker, 109 North Wabash Avenue, Chicago 2.

BOARD OF VOCATIONAL NURSE EXAMINERS

New appointees to the Texas State Board of Vocational Nurse Examiners include Palmore Currey, D. O., Mt. Pleasant; Fred R. Higginbotham, San Antonio; and Mrs. Mowdell Seagler, San Angelo. Dr. G. E. Brereton, Dallas, was one of the three whose term of appointment had expired. The new board approved the following schools for the training of vocational nurses: DeTar Memorial Hospital School of Vocational Nursing, Victoria; Abilene Vocational Nurse School, Abilene; and the Greenville Medical and Surgical Hospital School of Vocational Nursing, Greenville.

LIBRARY SECTION

ACCIDENTS

Accidents are the most common cause of death of persons between the ages of 1 and 25 years in the United States. In 1953, there were 95,000 deaths due to accidents in this country, or almost three times the number of Americans killed in the entire Korean campaign.

This is the estimated accidental death total of 1953:

Motor vehicles	38,300
Persons under 5 yr.	1,444
15-24 yr.	7,487
Over 65 yr.	2,330
Falls	20,500
Under 5 yr.	367
65-70 yr.	2,211
Burns	6,600
Drowning	6,700
Railroad accidents	3,200
Firearms	2,500
Poison (gas)	1,300
Poison (other than gas)	1,400

It should be noted that many types of accidents occur in the home, including falls, burns, poisons, and, occasionally, firearm accidents. In one year alone, more than 4,500,000 Americans were either injured or killed in accidents occurring in or around the home. These accidents usually are preventable, because the hazards which caused the accidents could have been corrected. The most dangerous place in the home is the bedroom, where 25 per cent of all fatal accidents occur; 11 per cent occur in the yard; and the kitchen ranks third with 10 per cent of all fatalities. One-third of the accidents in the United States occur in or around the home.

Most of the figures available involve only the fatal accidents. However, the National Safety Council has estimated that for each fatal accident there are from 100 to 150 nonfatal accidents resulting in some disability for at least 24 hours. It is also estimated that for each fatality there will occur at least four accidents which will result in some type of permanent disability, such as blindness or paralysis.

Americans are said to be money-conscious. How many of them realize that our national accident record is estimated to cost the American people more than $650 million in wages lost, increased insurance premiums, and medical expenses?

Unfortunately, there are no specific immunizing agents to prevent accidents, nor will a miracle drug be discovered to lower our accident rate!

References on accidents available in the Memorial Library of the Texas Medical Association include:

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Appel, K. E., and Scheflen, A. E.: *The Human Element in Accidents,* Delaware M. J. *27:*115-122; 128-133 (June) 1955.

Ayre, W. B., and Hopkirk, J. F.: *Medical Aspects of Industrial Accidents; A Method of Study,* Arch. Indust. Health *11:*453-456 (June) 1955.

Bedwell, T. C., Jr.: *Cost of Accidental Trauma in the Armed Forces,* Mil. Med. *116:*436-439 (June) 1955.

Bissell, D. M.: *Epidemiology of Accidents, Stanford M. Bull. 13:*144-149 (May) 1955.

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Cleveland Division of Health: *For a Safer Hunting Season,* news release, Oct. 28, 1955.

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Moseley, H. G.: *Injuries Incurred in Aircraft Accidents,* Mil. Med. *116:*440-445 (June) 1955.

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Richardson, William H.: *Accidents as a Public Health*

Problem in North Carolina, North Carolina State Board of Health, Radio Speech, no. 28, 1954.

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Smith, B. J.: *The Industrial Nurse and Home Accidents,* Am. J. Nursing *55:*811 (July) 1955.

Strong, G. F.: *The Medical Profession and Traffic Accidents,* J.A.M.A. *158:*905-907 (July 16) 1955.

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Wanted: Safety Devices for Automobile Passengers, J.A.M.A., *158:*482 (June 11) 1955.

Whitfield, J. W.: *Personal Factors in Accident Proneness,* Nature *175:*112 (June 25) 1955.

Woodward, F. D., and Moon, C. N., Jr.: *The Physician's Responsibility in the Prevention of Automobile Accidents and Deaths,* Virginia M. Month. *82:*169-172 (April) 1955.

Zindwer, R.: *An Educational Project in Childhood; Accident Prevention,* Am. J. Pub. Health *45:*438-441 (April) 1955.

Zollinger, R. W.: *Traffic Injuries,* Indust. Med. *24:*299-301 (July) 1955.

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Cowdry, E. V.: Cancer Cells, Philadelphia, W. B. Saunders, 1955.

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Faber, Harold K.: The Pathogenesis of Poliomyelitis, Springfield, Ill., Charles C Thomas, 1955.

Franzblau, Abraham N.: The Road to Sexual Maturity, New York, Simon and Schuster, 1954.

Givner, Isadore, and Bruger, Maurice: Prevention of Disease in Everyday Practice, St. Louis, C. V. Mosby, 1955.

Gragill, Samuel L.: Diseases of the Thyroid Gland, New York, Oxford University Press, 1955.

Gross, E. G., and Schiffrin, M. J.: Clinical Analgetics, Springfield, Ill., Charles C Thomas, 1955.

Harrower, Molly: Medical and Psychological Teamwork in the Care of the Chronically Ill, Springfield, Ill., Charles C Thomas, 1955.

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Williamson, Paul: Office Procedures, Philadelphia, W. B. Saunders, 1955.

CONTRIBUTIONS TO THE LIBRARY

Grateful acknowledgment is made by the Texas Medical Association Memorial Library for the following recent gifts:

Dr. Dolph L. Curb, Houston, check, in memory of Dr. W. E. Payne, Slaton.

Dr. John E. Johnson, Austin, 3 journals.

Dr. Carey Legett, Jr., and Dr. Georgia Legett, Austin, 13 journals.

Dr. Morris Polsky, Austin, 57 journals.

Dr. Harry C. Powell, Jr., Austin, 94 journals.

Dr. Joe C. Rude, Austin, 21 journals.

Dr. Milton Turner, Austin, 10 bound journals, 69 journals.

Woman's Auxiliary to the Galveston County Medical Society, book, "Jane Long," by Anne Ammons Brindley.

MOTION PICTURES FOR LOAN

Film Lists Available

New listings of both the lay and professional films in the Texas Medical Association Memorial Library collection are now available. These lists contain a short synopsis of each film, and may be obtained upon request from the Library, 1801 North Lamar Boulevard, Austin.

Head of the House

16 mm., sound, 40 minutes. Produced by United World Films, Inc. (Purchased by the Texas Medical Association Memorial Library.)

This film depicts the emotional problems of a young boy, his rebellion against parental controls, particularly his father's repressive discipline, and his gradual development into a potential juvenile delinquent. It shows the assistance of a community social worker and a neighborhood welfare house in bringing about development of a better understanding between father and son. This film stresses community concern for child welfare, and is excellent for all adult groups.

Fred Bauer Waits

16 mm., sound, 28 minutes. Produced in 1954 by the Health Information Foundation. (Purchased by the Texas Medical Association Memorial Library.)

In this film, Fred Bauer thinks that he has cancer but is afraid to have a physical examination. He does nothing until his family, upset by his increasing irritability, urges him to see a doctor. The doctor finds that he has diabetes, but with proper medical care he will recover and lead a normal, healthy life. This is a very good film for adults.

BOOK NOTICES

[1]Current Therapy, 1955

Edited by HOWARD F. CONN, M. D. *692 pages. $11. Philadelphia, W. B. Saunders Company, 1955.*

The 1955 "Current Therapy" contains the contributions of nearly 300 outstanding physicians who are using the most effective treatment known to medical science today for the nearly 400 diseases about which they have written.

This book is for quick reference and is readily comprehended, always with exact dosages and even prescriptions where necessary. Treatments are considered under separate headings. Therapy is separate and with distinct procedures.

This text should be on every physician's desk this present day, that he may lay his finger swiftly and conveniently on today's best treatments of the many diseases. The material contained in this text places one abreast of times, and certainly the busy physician cannot look through the many journals or depend on his memory for the latest word in modern therapy.

[2]When Minds Go Wrong

JOHN MAURICE GRIMES, M. D., *Formerly staff member of the Council on Medical Education and Hospitals, American Medical Association; Author of "Institutional Care of Mental Patients in the United States." 246 pages. $3.50. New York, Devin-Adair Company, 1954.*

This book by a former member of the American Medical Association staff presents a viewpoint of the failings of present day state hospitals, with little or no mention of their accomplishments. The author's evaluations of treatment modalities, especially electroshock therapy and psychosurgery, differ so widely from those generally held in authoritative psychiatric circles that one necessarily questions the accuracy of his conclusions in these spheres.

The book lacks an atmosphere of objectivity and impersonal presentation of facts or observations. On the contrary, vivid personal differences of opinion and viewpoint are glaring. Although it is well known that our state hospitals are far from perfect because of overcrowding, understaffing, and inadequate financial support, this book cannot be recommended as an unbiased discussion of the problem.

[3]Ultrasonic and Ultrashort Waves in Medicine

JOHANNA M. VAN WENT, M. D., *Director, Institute for Physical Medicine and Rheumatism, Amsterdam. 384 pages. $9. Houston, Elsevier Publishing Company, 1954.*

This book probably would have had a better evaluation by one whose specialty lies in this field. My observations are that the author of this book is conservative in a manner borne out by experience and by the development of good judgment that comes in the wake of being a pioneer in one of the newer developments in medicine. The reviewer read the entire book, except for 40 pages, in one day. A book usually does not hold the reviewer's interest to that extent.

Osler many years ago predicted that the next major advance would be in the branch of physical medicine. The book deals with such factors as frequency and intensity, and with physical effects of mechanical, chemical, and thermal changes in tissue cells and body fluids. Their influence on the rapidity of growth, effects on the germination of plants, and the damaging effects of overdosage are well evaluated and discussed.

The time interval of treatment is usually five minutes or less and usually not more than twice weekly, but here again it is not a plaything for the novice; solid and good training in its use are desirable. The author sets up each individual patient and allows no one closer than 2 meters distance as a measure of precaution against ill effects on the working personnel in the department. The method of application usually is local along the peripheral nerves, over sympathetic nerve chains and ganglions. It is at times combined with other methods of therapy found of value in the particular condition.

Subjective pain on the part of the patient is deemed a definite criterion of overdosage and even unpleasant sensations are so interpreted. Sensitivity not only varies from patient to patient but will vary in the same patient on different days. It impresses one as a business that would make one a bit watchful and a bit careful in his observation and evaluation of the patients.

This book is recommended for those who would like to spend an interesting and speculative evening on the present and future trends in this ever changing practice of medicine.

The Practice of Sanitation

EDWARD SCOTT HOPKINS, *Principal Associate Engineer, Bureau Water Supply, Baltimore; Colonel, Medical Service Corps (Sanitary Engineering Section), United States Army, Reserve; Instructor, McCoy College, Johns Hopkins University; and* WILMER HENRY SCHULZE, *Director, Sanitary Section, Baltimore City Health Department. ed. 2. 466 pages. $8. Baltimore, Williams and Wilkins Company, 1954.*

The second edition of this text has been developed as a guide in environmental sanitation procedures for the training of physicians seeking to become health officers, nurses, sanitarians, and students in sanitary engineering. It contains nine new chapters on subjects considered important in modern public health programs. The subject is presented in a clear, readable style with excellent bibliographies. Illustrations of technical equipment and tables are included. The compilation of complete and scientifically accurate data in the field of sanitation and public health is a tremendous task which the authors have successfully accomplished.

Fourth Annual Report on Stress

HANS SELYE, M. D., Ph. D. *(Prague)*, D. Sc. *(McGill)* F. R. S. *(Canada)*, F.I.C.S. *(Hon.), Professor and Director, Institut de Médecine et de Chirurgie Expérimentales, Université de Montréal, and* GUNNAR HEUSER, M. D. *(Cologne), Research Assistant and Librarian of the Institute. 749 pages. Montreal, Canada, Acta, Inc., 1954.*

The "Annual Report on Stress" is a yearly supplement which has been published as an index to facilitate the review of the rapidly growing literature in this field. Each of the successive volumes will follow the general outline of the original monograph on stress. Special points of current interest are discussed in the form of independent original articles by guest authors who are recognized as authorities in their fields. The second part of the book is a classified index to current literature on stress, the general adaption syndrome, and the adrenal steroids. The index is classified according to a system specially devised by the author. The volume is of value to those with active interest in the general adaption syndrome and the adrenal steroids.

[1]*A. W. Brazda, M. D., Ranger.*
[2]*Jean Head Cooper, M. D., San Antonio.*
[3]*Joe C. Rude, M. D., Austin.*

[4]Fundamentals of Internal Medicine

WALLACE MASON YATER, M. D., M. S. (in Med.), F.A.C.P., *Director, Yater Clinic, Washington, D. C. ed. 4. 1276 pages. $13.50. New York, Appleton-Century-Crofts, Inc., 1954.*

This excellent reference book shows diligent and painstaking care in its preparation, and it has managed to include the more recent advances in internal medicine. This has been done with no sacrifice in information. The reviewer has followed the author's works over the past quarter of a century, and his contributions to medicine set an example which few men of our time achieve. One derives a satisfaction from finding here the answers to many questions hard to find elsewhere.

The sections on eye, ear, dermatology, dietetics, and antibiotic therapy are excellent for quick reference by the general practitioner and busy specialist alike.

The chapter on "The Physician Himself" is one that is much needed as a guide to physicians entering practice for the first time, and it is one calculated to promote harmony in the profession and improve the relationship of physicians generally with the public.

One can wholeheartedly recommend this book as a handy reference for use in diagnostic problems by all physicians and by medical students, interns, and residents in particular.

[4]*Joe C. Rude, M. D., Austin.*

[5]The Therapy of Skin Tuberculosis

GUSTAV RIEHL, M. D., *Professor of Dermatology, University of Vienna; Director, Lupus Institute of Vienna, Director, Department of Dermatology, Wilhelminen Hospital, Vienna, and* OSWALD KOPF, M. D., *Former Assistant, Lupus Institute of Vienna; Assistant, Department of Dermatology, Wilhelminen Hospital, Vienna. Translated and revised by* ERNEST A. STRAKOSCH, M. D., PH. D., *Director, Department of Dermatology, Presbyterian Hospital, Denver. 247 pages. $6.75. Springfield, Ill., Charles C Thomas, 1955.*

This book represents a tremendous amount of work. There are 460 references. The foreword is by Henry E. Michelson, M. D.

Tuberculosis of the skin is rare in dermatologic practice in the United States, especially in the South. Diagnosis is not mentioned, but treatment and remedies are discussed in detail as to their advantages and dangers. The book is a source of valuable information in the treatment of skin tuberculosis as a reference book and for its bibliography.

Dr. Riehl and Dr. Kopf have evaluated the newer treatments of tuberculosis together with a history of treatments used in the past.

[5]*Ben H. Griffin, M. D., Frost.*

ORGANIZATION SECTION

TEXAS MEDICAL ASSOCIATION

NEW EXHIBIT SHOWS TMA SERVICES

A new exhibit, topped by a scale model of the headquarters building, has been prepared to illustrate the organization and services of the Texas Medical Association.

The exhibit area is divided into three sections. In the first, small plastic signs list all the councils and committees of the Association. The center space is devoted to showing the services to members, emphasizing the JOURNAL, the Memorial Library, the physicians placement service, the visitation program, the legal services, the Woman's Auxiliary, legislative services, group disability insurance, and the doctor distribution survey. The lower half of the third area shows exactly where every dollar of dues goes, and in the upper half, physicians may see high lights of the program for the forthcoming annual session.

A model of the central office building stands atop an exhibit showing the organization and services of the Texas Medical Association.

Above the exhibit board is a model of the Association's headquarters building. It is built almost to exact scale from the original architect's plans of the building, and is completely landscaped.

This exhibit will be shown at the annual session of the Association in Galveston, and at the meetings of the International Medical Assembly of Southwest Texas, San Antonio; Dallas Southern Clinical Society, Dallas; Houston Academy of Medicine, Houston; and Texas Academy of General Practice, Houston. In addition, it will be taken to all county and district society meetings attended by a member of the central office staff. It is built to fit into a car for travel. Standing about 4½ feet tall at the highest point, the exhibit area slants to a height of 3 feet in front. It is 72 inches long and 36 inches deep.

ADDITIONAL ANNUAL SESSION SPEAKERS

Since the list of guest speakers for the 1956 annual session of the Texas Medical Association, April 21-25 in Galveston, was published in the October JOURNAL, several additional authorities have been added to the program.

Dr. Walter S. Priest of Chicago, associate professor of medicine at Northwestern University Medical School, has accepted the invitation of the Texas Heart Association and the Texas Medical Association to participate in the meeting. Dr. Priest currently is president of the American College of Cardiology.

Dr. Herbert E. Schmitz, also of Chicago, is to be a guest of the Texas Medical Association through the generosity of the Texas Division of the American Cancer Society. Dr.

Conference of County Medical Society Officials

Texas Medical Association, Headquarters Building, Austin

January 21, 11 a. m.

Welcome.—DR. J. LAYTON COCHRAN, San Antonio, President, Texas Medical Association.

Internal Problems Confronting Doctors; Activities of Texas Delegates to the House of Delegates of the American Medical Association.—DR. MILFORD O. ROUSE, Dallas, Delegate, American Medical Association, and President-Elect, Texas Medical Association.

Issues Pending Before the House of Delegates, Texas Medical Association, at Galveston in 1956.—DR. HOBART O. DEATON, Fort Worth, Speaker, House of Delegates.

An Accounting of Stewardship; What Happens to Your $50 Dues?—DR. R. W. KIMBRO, Cleburne, Chairman, Board of Trustees.

Obligations of Members to Organized Medicine and Medical Ethics.—DR. J. T. BILLUPS, Houston, Chairman, Board of Councilors.

Services of the Central Office, Improving Liaison with County Medical Societies.—C. LINCOLN WILLISTON, Austin, Executive Secretary.

Texas Medical Association Councils and Committees; Serving Our 7,000 Membership.—DR. S. W. THORN, Houston, Vice-President, Texas Medical Association.

The 1956 Annual Session at Galveston.—DR. L. BONHAM JONES, San Antonio, Member, Council on Scientific Work.

Welcome to Galveston.—DR. EDWARD R. THOMPSON, Galveston, Chairman, Committee on General Arrangements for the Annual Session.

Schmitz is a recognized authority in treatment of cancer of the female genital system.

Lt. Col. John P. Stapp, USAF (MC), is chief of the Aero Medical Field Laboratory, Holloman Air Development Center, Holloman Air Force Base, N. Mex. He was invited by the Council on Scientific Work as the principal speaker for the General Meeting Luncheon. Colonel Stapp has studied man's physical limitations in the jet age through experiments in speed and deceleration. He was featured on the cover of *Time* magazine September 12.

Several panel discussions will be presented as refresher courses, and the faculty for them, other than previously listed guests, follows:

Dr. Edward T. Smith, clinical professor of orthopaedic surgery, Baylor University College of Medicine; *Jess Neely,* head football coach and athletic director, Rice Institute; and *Eddie Wojecki,* football trainer, Rice Institute, all of Houston, will repeat on the 1956 refresher course program their discussion of "Athletic Injuries."

For a course on "Medical, Legal, and Insurance Aspects of the Treatment of Industrial Injuries," *Dr. Frederick C. Rehfeldt,* Fort Worth, will serve as moderator, and panel members will include *Smith Pettigrew,* medical coordinator of Texas Employers' Insurance Commission, Dallas, presenting the insurance aspects; *Newton Gresham,* Houston attorney, legal aspects; and *Dr. G. W. N. Eggers* of Galveston, medical aspects.

Dr. Robert M. Moore, professor of surgery, University of Texas Medical Branch, Galveston, with Dr. Perry P. Volpitto of Augusta, Ga., and Dr. Maurice S. Segal of Boston, will present a panel discussion on "Factors Influencing Morbidity and Mortality in the Surgical Patient."

The total number of guests and refresher course faculty is 32.

Council and Committee Changes

The list of officers, councils, and committees of the Texas Medical Association was published in the August and September issues of the Journal, and several changes and additions have been announced since then. Changes in the list as of November 22 follow:

Council on Medical Education and Hospitals.—William V. Leary, Houston, was appointed September 8, 1955, to fill the vacancy until 1959 created by the resignation of S. W. Thorn, Houston, April 27, 1955.

Committee on Cancer.—J. L. Goforth, Dallas, was appointed September 19, 1955, to serve until 1957 in place of C. T. Ashworth, Fort Worth, who resigned September 2.

Committee on Maternal Mortality.—Carl F. Moore, Austin, was added to the committee.

Symposium on Legislation

Texas Medical Association, Headquarters Building, Austin

January 21, 2 p. m.

Address.—SENATOR PRICE DANIEL, Austin.

Round-Table Discussion: Important Medical Legislation Pending in Congress in 1956.

1. *Payment of Cash Disability Benefits and Its Relationship to Medicine.*—DR. G. W. CLEVELAND, Austin, Chairman, Council on Medical Jurisprudence.
2. *Compulsory Coverage for Physicians Under Social Security and the Jenkins-Keogh Bills.*—DR. MYLIE E. DURHAM, JR., Houston, Member, Council on Medical Jurisprudence.
3. *Federal Health Reinsurance and Its Effect Upon the Practice of Medicine.*—DR. JOHN M. SMITH, San Antonio, Member, Council on Medical Jurisprudence.
4. *Federal Aid to Medical Education; Military Scholarships for Medical Students.*—DR. ROBERT D. MORETON, Fort Worth, Member, Council on Medical Jurisprudence.
5. *A Proposed Plan for Medical Care for Dependents of Servicemen; Federal Mortgage Loan Insurance.*—DR. JAMES W. RAINER, Odessa, Member, Council on Medical Jurisprudence.

Address.—DEAN CLARENCE E. MANION, South Bend, Ind.

A hospitality hour will be held in the Maximillian Room of the Driskill Hotel at 5 p. m. January 21. The Executive Council will meet the next day at 9 a. m. at the Texas Medical Association Headquarters Building.

Committee on Memorial Services.—The committee will stand as a five-man group without A. C. Bennett, Marlin.

State Committee for American Medical Education Foundation.—Members of the committee in addition to the chairman, J. R. Donaldson, Pampa, are Allen Forbes, Jr., Austin; S. W. Bohmfalk, Weslaco; T. D. Young, Sweetwater; O. H. Chandler, Ballinger; Walter Walthall, San Antonio; Luke Able, Houston; R. H. Baskin, Waco; George E. Glover, Jr., Victoria; J. D. Steed, Wichita Falls; Capres S. Hatchett, Jr., Amarillo; D. J. Sibley, Jr., Fort Stockton; Stephen B. Tucker, Nacogdoches; and Dan C. Gill, Dallas.

COUNTY SOCIETIES

Nueces County Society

October 11, 1955

(Reported by J. F. Alsop, Secretary)

Use and Abuse of Adrenal Cortical Steroids and ACTH—Mavis P. Kelsey, Houston.

Meeting in Corpus Christi October 11, members of the Nueces County Medical Society heard the above presentation by Dr. Kelsey. It was requested that members cooperate with the Nurses Disaster Program of the American Red Cross, and it was pointed out that office nurses as well as hospital nurses might be interested in attending the meeting for coordination of the program. Two physicians were elected to membership in the society.

Tarrant County Society

October 18, 1955

(Reported by Miss LaVerne Downtain, Executive Secretary)

Origin and Treatment of Psychopathic Disorders in Children—W. D. Diamond, Alonzo J. Beavers, and Harry H. Womack, Fort Worth.

An amendment deleting the word "white" from the Tarrant County Medical Society's requirements for membership was read at the October 18 meeting in Fort Worth. Three new members were elected to the society, and it was announced that Louis H. Bauer, past president of the American Medical Association, would be guest speaker at the inaugural banquet January 3, 1956.

Tierra Blanca Society

August 16, 1955

(Reported by B. A. Masters, Secretary)

Cerebral Trauma—William Price, Amarillo.

The Tierra Blanca Medical Society met in Hereford August 16, and the above scientific paper was presented, followed by a discussion of the management of open and closed injuries. R. R. Wills, Hereford, discussed the Jenkins-Keough Bill, and urged members to make known their views to congressmen before the next session.

September 20, 1955

(Reported by B. A. Masters, Secretary)

Agammaglobulinemia in General Practice — G. Dudley Moore, Jr., Canyon.

Meeting in Canyon September 20, members of the Tierra Blanca Medical Society heard the above program. It was decided that the October meeting would not be held in order that members might attend the local meeting of the American Cancer Society in Borger which was scheduled the same night.

Travis County Society

November 12, 1955

(Reported by C. H. McCuistion, Secretary)

Hospitalization, Health, and Accident Insurance—Mr. Lowery Loveless, Dallas.

At the November 12 meeting of the Travis County Medical Society in Austin, Mr. Loveless, president of the Dallas chapter of the Texas Accident and Health Claims and Underwriter's Association, spoke on insurance. Prior to the program, G. W. Cleveland reported on legislative matters.

AUXILIARY SECTION

AUXILIARY PHILANTHROPIES

The Woman's Auxiliary to the Texas Medical Association has four committees to care for its four philanthropic projects; they are the American Medical Education Foundation, the Library, the Memorial Fund, and the Student Loan Fund Committees.

Income from traditional sources no longer meets the need for medical schools, which for the most part operate as branches of parent universities and must be considered in relation to their other departments. Because of the great financial drain, trustees of such universities have considered closing the medical schools.

Unquestionably the greatest problem facing our medical schools is the difficulty of recruiting and holding faculties because of low academic salaries, but other basic expenses are increasing as well. Student tuition now provides only about one-fifth of the actual cost of educating a physician, and the other four-fifths must come from other sources of income.

To prevent federal subsidization of medical schools, leaders in business, industry, and medicine met four years ago and established the National Fund for Medical Education, to be supported by business and industry, and the American Medical Education Foundation, to be supported by doctors.

The Auxiliary has given consistently of time and money to aid medical schools and funds are raised by various projects. Last year, Texas was one of the three state auxiliaries to win honorable mention from the American Medical Association for contribution to the AMEF.

The Memorial Library of the Texas Medical Association was organized in the 1920's, and one of its special aims is to make available by mail information on the newest developments in all fields of medicine. Medical journals, reprints classified by subjects, and motion picture films are available; bibliographies are prepared upon request, and appropriate literature is sent out.

The Library Committee of the State Auxiliary helps to make the facilities of the Memorial Library as complete as possible. An endowment fund has been established, providing a channel for giving to the library. To help the Library Committee, an "Attic Day" for January has been suggested. When Christmas ornaments are put away, Auxiliary members are asked to look for rare medical journals and books. In each county auxiliary, there might be a sale of discarded items from the attic, and the receipts contributed to the Library Fund.

The State Memorial Fund is a trust fund established in 1931 by the late Mrs. John O. McReynolds of Dallas in memory of her mother. The purpose of the fund is to render financial assistance to the wife or dependent of any doctor who at the time of his retirement or death was a member of the Texas Medical Association. It is increased by contributions from auxiliaries and other interested groups or individuals. The donations are held in the trust fund, and interest is used for love gifts made at the discretion of the Memorial Fund Committee and the President.

Donations to both the Library and the Memorial Fund in lieu of flowers in cases of death are acknowledged to the bereaved family by the committees.

The Student Loan Fund was started by Mrs. M. L. Graves and the late Mrs. S. C. Red, both of Houston, to provide financial help for worthy junior and senior medical students, interns, and residents. Each applicant must show need of assistance and must be unable to get financial aid from his family. Loans vary from $250 to $500, and as many as eight loans in a given year have been made.

The fund is increased by proceeds from the sale of Mrs. Red's book, "The Medicine Man in Texas," and from contributions, memorials, and gifts.

—MRS. W. FRANK ARMSTRONG, Fort Worth, Chairman, Committee on American Medical Education Foundation.

Officers of the Woman's Auxiliary to Texas Medical Association: President, Mrs. Joseph H. McCracken, Jr., Dallas; President-Elect, Mrs. R. C. Bellamy, Liberty; First Vice-Presidents, Mrs. Harold Lindley, Pecos; Second Vice-President, Mrs. William C. Barksdale, Borger; Third Vice-President, Mrs. Scott H. Martin, San Angelo; Fourth Vice-President, Mrs. L. L. D. Tuttle, Houston; Fifth Vice-Presidents, Mrs. John C. Parsons, San Antonio; Treasurer, Mrs. J. C. Terrell, Stephenville; Recording Secretary, Mrs. Franklin Campbell, Fort Worth; Corresponding Secretary, Mrs. O. M. Marchman, Jr., Dallas; Publicity Secretary, Mrs. Joe Thorne Gilbert, Austin; Parliamentarian, Mrs. O. W. Robinson, Paris.

COUNTY AUXILIARIES

Dr. Ben H. Griffin, Frost, was guest speaker for the *Navarro County Auxiliary*, which met in his home November 4. His subject was "Care of the Skin," and he showed colored slides of various skin diseases. Mrs. Griffin was appointed chairman of the committee on legislation, and plans were discussed for contributions to the Memorial Library of the Texas Medical Association.

Mrs. Joseph H. McCracken, Jr., Dallas, President of the Woman's Auxiliary to the Texas Medical Association, was guest speaker at the October 11 meeting in Corsicana of the *Navarro County Auxiliary*. The meeting was held at the home of Mrs. W. K. Logsdon, and Mrs. Leslie E. Kelton, Jr., was co-hostess. Mrs. Charles H. Cornwell, Marlin, president of the Twelfth District Auxiliary, also was a guest, and asked for help in organizing the unorganized counties in the district.

Past presidents of the *El Paso County Auxiliary* were honored at a luncheon in El Paso November 3. Preceding the luncheon, there was a panel discussion on juvenile problems. Panel members included Capt. John Fuller, chief probation officer of the juvenile detention home; Dr. John

A. Cooper, psychologist for the El Paso public schools; and the Rev. Harold Rahm, member of the National Senate Investigation Committee on Juvenile Problems. Mrs. Ross W. Rissler, El Paso, was moderator.

Members of the *Bowie-Miller Counties Auxiliary* entertained the wives of doctors who attended the September meeting of the Tri-State Medical Society in Texarkana. Social functions included a luncheon and a tea, which was held in the home of Mrs. Karlton Kemp.

Mrs. Frank Barker, Sweetwater, entertained members of the *Nolan-Fisher-Mitchell Counties Auxiliary* with a coffee in her home September 14. Mrs. McCracken was a special guest. The next day, Mrs. McCracken met with members of the *Brown-Comanche-Mills-San Saba Counties Auxiliary* at the home of Mrs. Paul Wheelis, Brownwood. She outlined some of the aims of the State Auxiliary, and emphasized opportunities for county auxiliaries to serve their communities.

On November 11 in Fort Worth, *Tarrant County Auxiliary* members heard Capt. William E. Mayer, psychiatrist at Brook General Hospital, San Antonio, speak on the procedures and reasoning behind brain washings.

At a coffee at the home of Mrs. C. H. Reese, Waco, new members of the *McLennan County Auxiliary* were honored late in September. Hostesses were Mesdames E. B. Fine, N. M. Atkins, R. L. Coffelt, A. L. Goodman, Jack Flowers, G. T. McMahan, J. R. Shipp, F. L. Stanislav, J. R. Forsythe, and R. K. Gassler, all of Waco, and Mrs. J. C. Bradford, Mart.

DISTRICT AUXILIARIES

Fourth District Auxiliary

October 20, 1955

(Reported by Mrs. H. B. Allen, Brownwood)

The Woman's Auxiliary to the Fourth District Medical Society met on October 20 in Brownwood. Special guests were Mrs. Harold Lindley, Pecos, First Vice-President of the Woman's Auxiliary to the Texas Medical Association; and Mrs. Scott Martin, San Angelo, Third Vice-President of the State Auxiliary. Mrs. O. N. Mayo, Brownwood, was hostess at a tea in her home for the wives of visiting physicians.

New officers elected for the coming year are Mesdames J. N. White, San Angelo, president; C. F. Bailey, Ballinger, vice-president; and Mrs. S. Braswell Locker, Brownwood, secretary-treasurer.

DEATHS

W. E. MULDOON

Dr. Wilfrid Edward Muldoon died October 3, 1955, in San Antonio, Texas.

He was born in Youngstown, Ohio, on November 29, 1896, and received his preliminary education there. He was the son of Edward M. and Sara (Gettins) Muldoon. Following his graduation from high school, Dr. Muldoon entered the University of Michigan, Ann Arbor, where he earned his bachelor of science degree in 1920. He was graduated from the University of Michigan Medical School in 1922, and went to the Panama Canal Zone, where he interned at the Ancon Hospital, Ancon, for one year. He then practiced medicine in the Tela Railroad Hospital, Honduras, for two years, before going to Europe to study ophthalmology at the University of Paris, the University of Bordeaux, and the University of Vienna. Returning to the United States, he served a two year residency in ophthalmology at the Wills Eye Hospital, Philadelphia, before beginning his own practice in San Antonio.

DR. W. E. MULDOON

Dr. Muldoon was a member of the Bexar County Medical Society, the Texas Medical Association, the American Medical Association, and the American Academy of Ophthalmology and Otolaryngology, and was a diplomate of the American Board of Ophthalmology. He also was a member of the Association Medico Hondureno and the American Medical Association of Vienna.

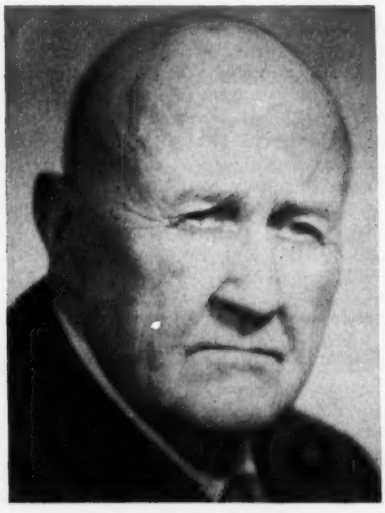
Survivors include Mrs. Muldoon; a son, William Henry Muldoon; a daughter, Miss Laurie Muldoon, all of San Antonio; three brothers, William H. Muldoon, San Antonio; James Muldoon, Baltimore; Edward M. Muldoon, Archbold, Ohio; and three sisters, Mrs. Edna Pyle, San Antonio; Miss Mary Blanche Muldoon, Toledo, Ohio; and Mrs. Fred C. Medicus, Berkeley, Calif.

J. P. WESTMORELAND

Dr. James Paschal Westmoreland, Houston, Texas, died at his home on October 22, 1955, of a heart ailment. He had been ill for about six weeks.

Dr. Westmoreland was born in Madisonville on April 4, 1880, and was the son of Dr. R. and Julia V. (Connor) Westmoreland. Dr. Westmoreland attended the University of Texas, Austin, and Vanderbilt University, Nashville, Tenn., and received his bachelor of arts degree in 1903. He then entered the Hospital College of Medicine, Louis-

ville, Ky., from which he was graduated in 1907. He also took some instruction at the University of Texas Medical Branch, Galveston. Dr. Westmoreland interned at the Louisville City Hospital, and at John Sealy Hospital, Galveston, and practiced briefly in Midway, Weldon, Onalaska, Trinity, and Madisonville. He was associated with the Texas Prison System and the West Lumber Company while he was in East Texas. In 1920, he moved to Houston, where he joined the staff of St. Joseph's Hospital. He was one of the oldest staff members at the time of his death. During World War I, he served as a medical examiner for Selective Service.



DR. JAMES P. WESTMORELAND

He was elected to honorary membership in the Texas Medical Association in 1952, after having been a member continuously since 1907. He also was a member of the Harris County Medical Society, the American Medical Association, the Houston Academy of Medicine, the Postgraduate Medical Assembly of South Texas, and the Ninth District Medical Society. He was a member of the Masonic Lodge and the Houston Club.

Miss Grace M. Clapp and Dr. Westmoreland were married in Granbury in 1903. Mrs. Westmoreland died October 17, 1953. Surviving this union are three children, James P. Westmoreland, Jr., Bay City; Ben E. Westmoreland, Houston; and Mrs. John Bowles, Los Angeles. Other survivors are three sisters, Mrs. J. R. Wilson and Mrs. Mary Lynch, both of Huntsville, and Mrs. T. Ferguson, Madisonville.

J. E. LEVICK

Dr. Julius Ernest Levick, Houston, Texas, died on August 26, 1955, after a short illness.

Dr. Levick was born on January 29, 1899, in Ekaterinoslav, now called Dnepropetrovsk, Russia, and was the son of Moses and Molly Levick. After coming to North America, he attended the University of Manitoba, Winnipeg, Canada, and the University of Manitoba Faculty of Medicine, Winnipeg, from which he was graduated in 1922. He interned in the Children's Hospital, Winnipeg, for one year; served a general residency in Vancouver General Hospital, British Columbia, for one year; then spent another year of general internship at St. Anthony's Hospital, Oklahoma City. He practiced medicine in Elk City, Okla., from 1925 until 1949. Dr. Levick was an officer in the Army Medical Corps from 1942 until 1945, during which time he received training in psychiatry. He moved in 1949 to Houston, and was a psychiatrist at the Veterans Administration Hospital, where he was practicing at the time of his death.

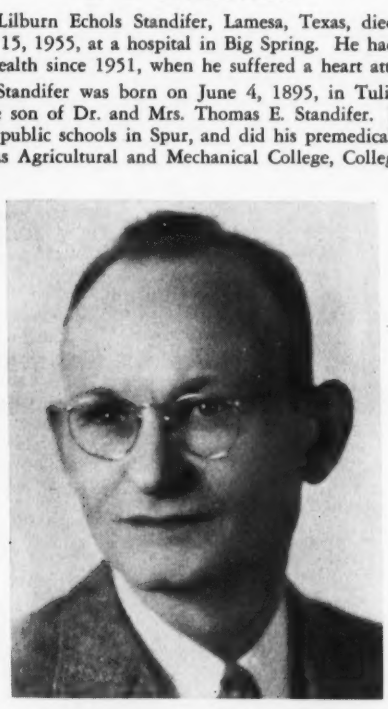
Dr. Levick became affiliated with the Texas Medical Association in 1949 through the Harris County Medical Society, and was also a member of the American Medical Association, Phi Delta Epsilon medical fraternity, the Masonic Lodge, the Kiwanis Club, and the Temple Beth Israel.

He was married to Miss Dena Weinberg in Oklahoma City in 1926. Surviving him are two daughters, Mrs. Melvin Anchell and Miss Diana Levick, Houston; one son, Norman Levick, Amarillo and five grandchildren.

L. E. STANDIFER

Dr. Lilburn Echols Standifer, Lamesa, Texas, died September 15, 1955, at a hospital in Big Spring. He had been in ill health since 1951, when he suffered a heart attack.

Dr. Standifer was born on June 4, 1895, in Tulia, and was the son of Dr. and Mrs. Thomas E. Standifer. He attended public schools in Spur, and did his premedical work at Texas Agricultural and Mechanical College, College Station. He then entered the University of Texas Medical Branch, Galveston, but was graduated from the Tulane University School of Medicine in 1925. Dr. Standifer began his medical practice in Junction, and practiced for a time in Lamesa, Turkey, Oklahoma City, Vernon, Spur, and Austin. During World War II, he served as a major in the Army Medical Corps, and participated in the African Campaign. In 1946 he returned to Lamesa and practiced until his retirement in 1951.



DR. L. E. STANDIFER

He was a member of the Texas Medical Association during most of his professional career through the Dawson-Lynn-Gaines, Menard-Kimble, McCulloch, Childress-Collingsworth-Donley-Hall, Wilbarger, or Dawson-Lynn-Terry-Gaines-Yoakum Counties Medical Societies. He was president of the latter group in 1947, and had previously served

as its secretary. He also was a member of the American Medical Association and Phi Beta Pi medical fraternity, and was a fellow of the American College of Physicians. He was a member of Rotary International, the Masonic Order including the Shrine, and the Methodist Church.

Dr. Standifer was married April 25, 1927, in El Paso to Miss Edith Steele. Survivors are Mrs. Standifer; one daughter, Mrs. Marshall A. Pharr, who lives in Port Lyantey, French Morocco, where her husband is in military service; and a sister, Mrs. John L. Sallee, Lubbock.

D. E. SAUER

Dr. David E. Sauer, Lubbock, Texas, died in a Denver, Colo., hospital on October 9, 1955, from coronary insufficiency.

He was born on October 21, 1909, in Madisonville, Ohio, and received his bachelor of arts degree from the Ohio Wesleyan University, Delaware, Ohio. He was graduated from the University of Cincinnati Medical College in 1936, after which he completed his internship and surgical residency in the Youngstown City Hospital. From 1939 until 1945 he was chief of the surgical staff of the Kercheval Memorial Clinic, Kingwood, W. Va. He came to Texas in 1946 and practiced briefly in Raymondville and Hale Center before moving in 1947 to Kermit. In 1954, Dr. Sauer moved to Lubbock, where he was on the staff of the Methodist Hospital, the West Texas Hospital, and St. Mary's Hospital at the time of his death.

DR. DAVID E. SAUER

Dr. Sauer was a member of the Texas and American Medical Associations successively through the county medical societies of Cameron-Willacy, Reeves-Ward-Winkler-Loving-Culberson-Hudspeth, where he was president in 1951, and Lubbock-Crosby Counties. He also was a member of the American Academy of General Practice, the Presbyterian Church, and Rotary International.

Dr. Sauer was married in Raymondville in 1947 to Miss Svea Virginia Burman. He is survived by his wife; one sister, Mrs. Ralph Koehl, Columbus, Ohio; and two brothers, W. Denslow Sauer and George D. Sauer, both of Marietta, Ohio.

S. A. COLLOM, JR.

Dr. Spencer Allen Collom, Jr., died at his home in Texarkana, Texas, October 10, 1955.

Dr. Collom was born in Ratcliff, Texas, February 4, 1904. He was the son of Dr. Spencer Allen Collom and Eugenie (Read) Collom. After graduating from Texarkana High School, Dr. Collom entered Washington University, St. Louis, in 1921, but received his bachelor of arts degree from the University of Texas in 1925. He then entered Vanderbilt University School of Medicine, Nashville, Tenn., from which he was graduated in 1929. His internship was in the Fort Sam Houston Station Hospital, San Antonio. With the exception of three years' military service during World War II, Dr. Collom practiced in Texarkana throughout his professional career, where he was associated with the Collom-Carney Clinic. During the war, he was chief of the orthopedic services at the Three Hundredth General Hospital, Italy. He earned the bronze star and was discharged as a lieutenant colonel in the Army Medical Corps.

DR. SPENCER ALLEN COLLOM

Dr. Collom was a staff member of the Kansas City Southern and St. Louis Southwestern Railroads hospitals. He was a member of the Texas and American Medical Associations through the Bowie County Medical Society, of which he was president in 1941. He also was a member of the Tri-State Medical Society, the Southern Medical Association, and the American Fracture Society. He was a fellow of the American College of Surgeons and president of the Texarkana Hospital's board of directors. He also was president of the Temple Memorial Home for Crippled Children, and was honorary president at the time of his death. He was president of the Texarkana chapter of Rotary International, and the Texarkana Knife and Fork Club, and was a member of Phi Delta Theta social fraternity. He was a member of the Congregational Church.

Dr. Collom was married on June 12, 1929, in Nashville, Tenn., to Miss Mary Maddox. Mrs. Collom survives, as do one daughter, Mrs. Samuel A. Buchanan, Jr., Texarkana; his mother, Mrs. S. A. Collom, Sr., Texarkana; and two sisters, Mrs. G. D. Gantt, Houston, and Mrs. W. J. Hill, Dallas.

T. O. WOOLLEY

Dr. Talmage Oliver Woolley, Orange, Texas, died September 21, 1955, of acute myocardial infarction. The attack occurred while he was undergoing a routine physical examination in a local hospital.

Dr. Woolley was born January 28, 1885, in Overton, and was the son of James Hershal and Julia (Cobb) Woolley. After attending public schools there, he entered Sam Houston State Teachers College, Huntsville. He received his medical education at the University of Texas Medical Branch, Galveston, from which he was graduated in 1911. In 1926 he earned a degree in health education from Columbia University, New York, and he did other postgraduate work in 1930 at the Brooklyn Eye and Ear Hospital. Dr. Woolley began his medical practice in Palestine, where he was assistant house surgeon at the International and Great Northern Railway Employees Hospital. He then practiced briefly in Arp and Germantown. During World War I he served with the Seventh Cavalry at Fort Sam Houston, San Antonio, and Fort Bliss, El Paso, and was discharged as a captain in 1917. Moving to Houston to continue his practice in 1921, Dr. Woolley became a staff member of the Baptist Hospital, and was a professor of hygiene in the Houston public schools. Ten years later, he moved to Brenham and was associated with the St. Francis Hospital. Continuing his practice in Orange in 1941, Dr. Woolley was a staff member of the Lutcher Memorial Hospital, and was president of the staff of the Orange City Hospital.

He had been a member of the Texas and American Medical Associations almost continuously throughout his professional career through the Anderson, Smith, Victoria-Calhoun-Goliad, Harris, Washington, and Orange Counties Medical Societies. He was secretary of the Washington County Society in 1933 and 1934, and was elected president in 1938. He served as president of the Orange County Society from 1943 through 1945, and again in 1947. He also was a member of the Tenth District Medical Society. Dr. Woolley was given an award of appreciation for his efforts in planning and building the Orange County Memorial Hospital in 1954.

He was a steward and a trustee of the First Methodist Church, a member of Rotary International, and a thirty-second degree Mason and member of the Shrine.

Dr. Woolley was married August 11, 1912, in Tyler to Miss Livy Mae Cunningham. Mrs. Woolley survives, as do three children, Mrs. C. I. Whitehead, Houston; John P. Woolley, Baltimore; and Mrs. O. H. Landua, Annapolis, Md.; three sisters, Mrs. S. W. Adams, Austin; Mrs. S. M. Swindall, Brookfield, Ill.; and Mrs. A. F. Allen, Glenwood Spring, Colo.; one brother, J. P. Woolley, Shreveport, La.; and thirteen grandchildren.

G. P. RAINS

Dr. George Perry Rains, Marshall, Texas, died at his home on September 19, 1955, of coronary thrombosis.

He was born on September 18, 1872, in Marshall, and was the son of Major Mercer Rains and Nancy Texas (Arnett) Rains. His early education was obtained in a private school in Marshall, and he received his bachelor of arts degree from the University of Texas, Austin, in 1893. For his medical training, Dr. Rains chose the University of Texas Medical Branch, from which he was graduated in 1896. He earned another medical degree at the University of Pennsylvania, Philadelphia, in 1897. After interning in the John Sealy Hospital, Galveston, Dr. Rains served as house physician at the Texas and Pacific Hospital in Marshall for a short time, then began private practice there. He refreshed his medical knowledge periodically by taking courses at the New York Postgraduate Medical School.

Dr. Rains was elected an honorary member of the Texas Medical Association in 1954, after having been a member through the Harrison County Medical Society throughout most of his professional career. He was president of the county society in 1937. He also was a member of the Reserve Officers' Association, the Texas State Armory Board, the Military Surgeons Association, Phi Delta Theta social fraternity, the Masonic Lodge, and the Elks. Dr. Rains was a member of the board of directors of the Marshall National Bank, the Kahn Memorial Hospital, the Harrison County Red Cross, and the Marshall and Sabine Pass Railroad. He had served as vice-president of the hospital staff, and was a trustee of the College of Marshall and its successor, East Texas Baptist College. He was treasurer of the local USO during World War II, and was city commissioner at one time. He was chairman of the board and president of the

DR. GEORGE PERRY RAINS

Rains and Talley Funeral Home and the Rains Insurance Service Company, and was a deacon and then an honorary deacon in the First Baptist Church, which named its new education building, the Rains Children's Building, in his honor.

Dr. Rains' military career began in 1887, when he enlisted in the army at the age of 15, and covered a period of 49 years. He rose from the rank of private to major general, and was retired in 1936 with the rank of brevet lieutenant general. During World War I, he was a colonel in the Third Texas Infantry, and was commanding officer successively of the Thirty-sixth Military Police and Trains, the Sixty-first Pioneer Infantry, and of Camp Sheridan, Alabama. After World War I, he commanded the One Hundred and Forty-fourth Infantry, the Seventy-second Infantry Brigade, and the Thirty-sixth Division. He was honorary life president of the Thirty-sixth Division Association, and was the first commander of the Smiley-Summers Legion Post in Marshall.

Dr. Rains was married in Marshall on April 26, 1899, to Miss Norma Pitts, who died on February 16, 1953. They had no children. He is survived by three nephews and two nieces.

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THERAPEUTIC BILE

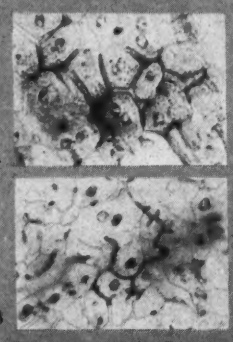
for patients with liver and gallbladder disorders

confirmed in the laboratory

In the isolated perfused liver (rat), *hydrocholeresis* with *Decholin Sodium* increases bile flow 200 to 300 per cent—*with no increase in total solids.*[2]

(A) *Hydrocholeresis*: Bile capillaries (rabbit liver) are filled with dilute bile 15 minutes after i.v. injection of sodium dehydrocholate.

(B) Untreated control.



Photomicrographs Demonstrate *Hydrocholeresis*: Increased Secretion of Highly Dilute Bile[1]

confirmed in practice

"true hydrocholeresis —a marked increase both in volume and fluidity of the bile"[3]

"Since bile of this nature and in this large output can flush out even the smaller and more tortuous biliary radicles, hydrocholeresis [with *Decholin* and *Decholin Sodium*] aids in removal of inspissated material and combats infection."[3]

Decholin®—Decholin Sodium®

Decholin Tablets (dehydrocholic acid, *Ames*) 3¾ gr. (0.25 Gm.). *Decholin Sodium* (sodium dehydrocholate, *Ames*) 20% aqueous solution; ampuls of 3 cc., 5 cc. and 10 cc.

(1) Clara, M.: Med. Monatsschr. *7*:356, 1953. (2) Brauer, R. W., and Pessotti, R. L.: Science *115*:142, 1952. (3) Schwimmer, D.; Boyd, L. J., and Rubin, S. H.: Bull. New York M. Coll. *16*:102, 1953.

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"NEGATIVE FOR CANCER"

1. The Papanicolaou smear is a screening method. It is useful if done routinely in the absence of any clinically noticeable lesion. If a lesion is present this should, of course, be investigated by biopsy, but it may still be helpful to precede the biopsy with a smear since malignant cells coming from a different area may thus be detected.

2. Office biopsies are often quite small. They should, therefore, be taken from several points rather than from a single area in order to increase the chances of recognizing a malignant process.

3. If the Papanicolaou smear is positive and no lesion is detectable, it is usually necessary only to perform curettage with a "knife cone biopsy" or several wedge biopsies taken from the region of the squamocolumnar junction. The curettage will often pick up fragments of a tumor high in the cervical canal.

4. A positive Papanicolaou smear is not sufficient as an indication for a hysterectomy. On the contrary, since invasive carcinoma may be present, a hysterectomy might be contra-indicated.

5. A diagnosis of "carcinoma in situ" or of "atypical epithelial hyperplasia" made from a small cervical biopsy should always be followed by more extensive biopsy procedure, preferably a knife cone. This is necessary since the carcinoma may be invasive outside the biopsy area.

6. The pathologist should be given vital information such as: age of patient, symptoms, menstrual history, menopause date, hormone therapy etc.

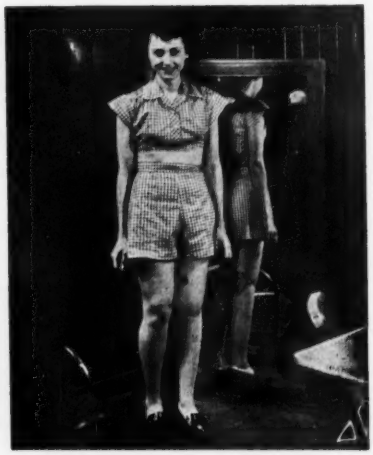
Information given to the pathologist helps you to help your patient.

DON'T MAKE YOUR PATHOLOGIST PLAY A GUESSING GAME!

TEXAS SOCIETY OF PATHOLOGISTS

Hanger Artificial Legs and Arms

MADE AND USED SINCE 1861



The Hanger organization with its Facilities, Branches, Subsidiaries and Licensees of the original Hanger Company is one of the oldest and largest manufacturers of Artificial Limbs in the world, with 31 factories and offices in the United States.

Limbs for ALL types of amputations furnished, fitted and finished at the Dallas factory by skilled Hanger-trained mechanics.

THE SUCTION SOCKET LIMB

Is a revolutionary development and opens a bright future for most wearers of above-knee prosthetic appliances.

We are available for consultation with the surgeon with reference to preparation of amputated limb for best results from prosthesis.

*In special cases we will measure patients at their homes. However, if convenient to come to the factory, we can measure, build and fit patient in forty-eight hours.

Plenty of Free Parking Space— Large, Cool Reception Rooms

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***For* TRIPLE SULFA THERAPY in ALL AGE GROUPS**

...SAFE—PLEASANT TO TAKE
...ACCURATE DOSAGE
...BUFFERED and VISCOLIZED
...WILL NOT SEPARATE

BUFFONAMIDE

TRIPLE SULFA SUSPENSION

TASTY, CHERRY FLAVOR and COLOR—ECONOMICAL!

There is no safer or more effective sulfonamide available! Extensive clinical trials show that triple sulfas (BUFFONAMIDE) have outstanding therapeutic efficiency among sulfa drugs.

Each Teaspoonful (5 cc.) Provides:	
Sulfadiazine	0.166 gm.
Sulfamerazine	0.166 gm.
Sulfacetamide	0.166 gm.
BUFFERED with Sodium Citrate	0.5 gm.

At Pharmacies Everywhere!

Handy 2 oz. Dispenser Pints or Gallons

BUFFONAMIDE ASSURES:

- Widest possible antibacterial spectrum
- Highest blood level... Safely and quickly
- Maximum potency in smallest dose
- Minimal side effects

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19180 Mt. Elliott Avenue • Detroit 34, Michigan

"Fresh up" with Seven-Up!

If you want a real thirst-quencher...

If you hanker for a cool, clean taste...

If you want a quick, refreshing lift...

Nothing does it like Seven-Up!

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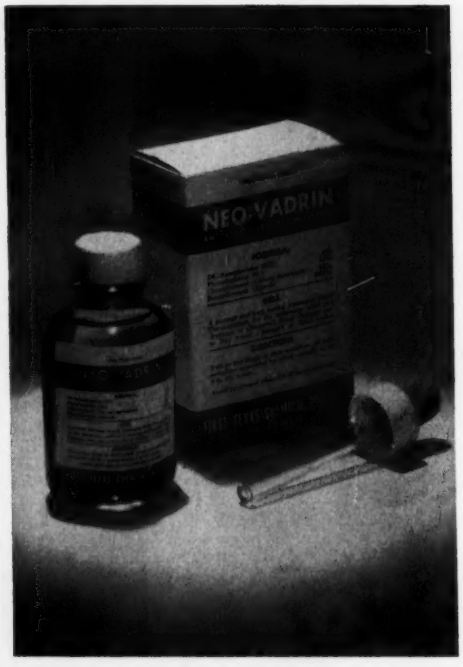
NEO-VADRIN The Ideal Nose Drop



★ Does not Burn or Cause Engorgement of the Nasal Mucosa.

★ Lasts Hours — Not Minutes.

Available:

1 oz. dropper bottle

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NEO-VARDIN is a long-lasting nasal decongestant for the relief and drainage of congested nasal passages due to Head Colds and Hay Fever or other Allergies

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CHEMICAL MANUFACTURING CO.

1903 - 1954: *Celebrating 51 Years of Making* FINE PHARMACEUTICALS

1810 N. Lamar **Dallas**

in rheumatoid arthritis

• 4-5 times as potent as cortisone or hydrocortisone, mg. for mg.

METICORTELONE

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METICORTELONE resembles METICORTEN in antirheumatic, anti-inflammatory and antiallergic effectiveness.[1-11] The availability of these new steroids, first discovered and introduced by Schering, provides the physician with two valuable agents of approximately equal effectiveness in cortical hormone therapy.

Bibliography: (1) Bunim, J. J.; Pechet, M. M., and Bollet, A. J.: J.A.M.A. *157*:311, 1955. (2) Waine, H.: Bull. Rheumat. Dis. *5*:81, 1955. (3) Tolksdorf, S., and Perlman, P.: Fed. Proc. *14*:377, 1955. (4) Herzog, H. L., and others: Science *121*:176, 1955. (5) Bunim, J. J.; Black, R. L.; Bollet, A. J., and Pechet, M. M.: Ann. New York Acad. Sc. *61*:358, 1955. (6) Henderson, E.: New developments in steroid therapy of rheumatic diseases, presented at New Jersey State Medical Society Meeting, Atlantic City, New Jersey, April 17-20, 1955. (7) Boland, E. W.: California Med. *82*:65, 1955; abs., Curr. M. Digest *22*:53, 1955. (8) King, J. H., and Weimer, J. R.: A.M.A. Arch. Ophth. *54*:46, 1955. (9) Criep, L. H.: Prednisolone and prednisone in the treatment of allergic diseases, to be published. (10) Sternberg, T. H., and Newcomer, V. D.: Am. Pract. & Digest Treat. *6*:1102, 1955. (11) Gordon, D. M.: Prednisone and prednisolone in ocular disease, to be published.

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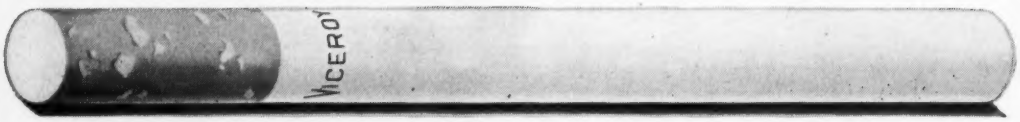

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We believe this simple fact is one of the principal reasons why so many doctors smoke *and* recommend VICEROY—the cigarette you can *really* depend on!

You are invited

by the

TEXAS MEDICAL ASSOCIATION

to participate in our

OFFICIAL "TRUE GROUP" PROGRAM

of

DISABILITY INCOME PROTECTION

a special plan

sponsored by our association

which will bring long-term benefits

to members

By Purchasing as a group . . . . We gain the following advantages.

1. All members under age 70 are eligible to apply. During the Charter Enrollment Period, all applicants in active full-time practice, will be insured regardless of medical history, except that impaired risk will be limited Plan D.

2. Due to the wholesale buying power of the Texas Medical Association and the economies of group administration, the cost of this insurance is from 35% to 50% less (depending on age) than any comparable coverage offered on an individual noncancellable basis.

3. The Texas Medical Association is the FIRST State Medical Association to procure LIFETIME BENEFITS FOR ACCIDENTS AND TEN YEAR BENEFITS FOR SICKNESS *as compared with only* five-year benefits for accidents and two or three-year benefits for sickness in almost all other medical plans. The best DISABILITY insurance is the contract which pays for the greatest length of time. Our contract is the ideal catastrophic coverage recommended at various times in medical publications.

4. THIS IS THE *FIRST* AND *ONLY* TRUE GROUP DISABILITY PROGRAM TO BE SPONSORED BY THE TEXAS MEDICAL ASSOCIATION.

5. The issuance of a MASTER POLICY to the Texas Medical Association and a CERTIFICATE of insurance to each participating member is our GUARANTEE that we are insured under a contract of TRUE GROUP Insurance.

6. FOR OUR PROTECTION, the Board of Trustees and the Council on Medical Economics will control every phase of the program. In case of a controversial claim, *the Board and Council will be our arbitrator.*

7. The insurance of an individual member under age 70 cannot be terminated by the Company nor his renewal refused as long as he is actively engaged in his profession, remains a member of the Texas Medical Association, pays his premium and the plan remains in force.

8. FULL BENEFITS ARE PAYABLE REGARDLESS OF THE INSURANCE WE NOW HAVE OR MAY ADD IN THE FUTURE. OUR POLICY HAS NO PRORATING CLAUSE.

Complete Application and Mail to Texas Medical Association 1801 N. Lamar Blvd. Austin, Texas

EFFECTIVE DATE
(For Postdating Only)

Important—See Other Side

APPLICATION

TEXAS MEDICAL ASSOCIATION

"TRUE GROUP" DISABILITY INCOME PROGRAM

CHARLES O. FINLEY & COMPANY — *Administrators*

Full Name _____
(Please Print)

Date of Birth _____ Age _____ Height _____ Weight _____
(Month-Day-Year)

Mailing Address _____ City _____ State _____

Name of Beneficiary _____ Relationship _____
Given Name—(Example—Mary Jones—NOT Mrs. Edward F. Jones)

1. Have you been disabled by either accident or sickness or received medical or surgical attention or advice during the past 10 years? _____ When? _____

   What for? _____

   Duration? _____

   _____

2. Have you ever been advised to have a surgical operation which has not been performed? _____

   (If so, when and what for?) _____

   _____

3. Have you ever had any disease of the lungs, heart, kidneys, stomach or nervous system or suffered from diabetes, cancer, tumors, back ailment, or tuberculosis in any form? (If so, when, what for and duration?) _____

   _____

   _____

I am a Member of the Texas Medical Association and understand that I must be actively and fully engaged in performing all of my regular duties on the date my insurance becomes effective.

Date _____ 19____ _____
Signature of Applicant

CHECK TYPE OF POLICY, PLAN AND PREMIUM DESIRED ON OTHER SIDE

PLEASE DO NOT ENCLOSE CHECK WITH THIS APPLICATION
A STATEMENT WILL BE ENCLOSED WITH YOUR POLICY

Underwritten by LUMBERMEN'S MUTUAL CASUALTY COMPANY

BENEFITS: LIFETIME FOR ACCIDENTS — TEN YEARS FOR SICKNESS
In Addition: $5,000.00 Accidental Death Benefit

Age Limits

Members up to age 60 may enroll in PLAN A, B, C or D.
Members age 60 to 65 may enroll in PLAN C or D.
Members age 65 to 70 may enroll in PLAN D.
} ALL POLICIES

CHECK TYPE OF POLICY, PLAN AND PREMIUM PAYMENT DESIRED

POLICY No. 1

"1ST and 8TH DAY COVERAGE"

ACCIDENT BENEFITS BEGIN FIRST DAY
SICKNESS BENEFITS BEGIN EIGHTH DAY
or FIRST DAY of Hospitalization—whichever occurs first

PLAN	WEEKLY BENEFITS	ANNUAL PREMIUM	SEMI-ANNUAL PREMIUM
☐ A	$150.00	☐ $384.00	☐ $192.00
☐ B	100.00	☐ 258.00	☐ 129.00
☐ C	75.00	☐ 196.00	☐ 98.00
☐ D	50.00	☐ 133.00	☐ 66.50

☐ "HOSPITALIZATION" (Optional) See Hospitalization

POLICY No. 2

"30 DAY WAITING PERIOD"

ACCIDENT BENEFITS BEGIN ON 31ST DAY
SICKNESS BENEFITS BEGIN ON 31ST DAY

PLAN	WEEKLY BENEFITS	ANNUAL PREMIUM	SEMI-ANNUAL PREMIUM
☐ A	$150.00	☐ $308.00	☐ $154.00
☐ B	100.00	☐ 208.00	☐ 104.00
☐ C	75.00	☐ 158.00	☐ 79.00
☐ D	50.00	☐ 108.00	☐ 54.00

☐ "HOSPITALIZATION" (Optional) See Hospitalization

POLICY No. 3

"SIX-MONTH WAITING PERIOD"

ACCIDENT BENEFITS BEGIN ON 181ST DAY
SICKNESS BENEFITS BEGIN ON 181ST DAY

PLAN	WEEKLY BENEFITS	ANNUAL PREMIUM	SEMI-ANNUAL PREMIUM
☐ A	$150.00	☐ $234.00	☐ $117.00
☐ B	100.00	☐ 158.00	☐ 79.00
☐ C	75.00	☐ 121.00	☐ 60.50
☐ D	50.00	☐ 83.00	☐ 41.50

☐ "HOSPITALIZATION" (Optional) See Hospitalization

HOSPITALIZATION — $15.00 DAILY
(Optional)

If hospitalization is included, *your weekly benefits are increased by $105.00* ($15.00 DAILY) for four months while confined to the hospital. These benefits are paid directly to you and not the hospital regardless of other hospitalization insurance. *These benefits begin immediately WITH ALL POLICIES.*

Annual.....$18.00 Semi-Annual.....$9.00

"EFFECTIVE DATE"

RE: Postdating the effective date of your insurance — if desired.

Several of you have expressed the desire to enroll as soon as one of your present policies expires. May we suggest that you return your application now, and we will be pleased to make the effective date of your policy coincide with the expiration date of your present policy.

THE INSTRUCTIONS ARE AS FOLLOWS:

1. Indicate the date you prefer your insurance to become effective in space provided on reverse side.
2. Complete the application and return immediately.

By applying in this manner you are assured of all the privileges of a CHARTER ENROLLEE provided you are in active full-time practice on the effective date of your insurance. Charter enrollment period closes January 1, 1956.

9. **World-wide coverage including regular scheduled commercial passenger air travel.**

10. **All disabilities arising after the insurance is effective are covered, irrespective of the date or origin of the ailment causing such disability.**

11. **No restrictive riders or limitations may be imposed on any member by the insurance company after your coverage is in force provided your complete medical history is included in the application.**

12. **Premium does not increase with age, nor do weekly benefits decrease with age.**

13. **The principal sum benefits are payable *in addition* to other benefits of the policy and can never operate as a limitation to the Company's liability for loss of time benefits.**

14. **Waiver of premiums after six months of continuous disability.**

15. **The policy provides 31 days of grace for payment of premiums.**

16. **There are no limitations as to how injuries must occur; the broadest insuring clause is used.**

17. **HOUSE CONFINEMENT IS NEVER REQUIRED TO COLLECT FULL BENEFITS.**

THIS FEATURE IS VERY IMPORTANT TO YOU. Do any of your present policies require you to be house confined?

18. **No exclusions except suicide, military service, war and private flying.**

SHOULD YOU HAVE ANY DOUBT ABOUT THE RELATIVE MERITS OF THIS PROGRAM, AS COMPARED WITH ANY POLICY WHICH YOU NOW HAVE, MAY WE SUGGEST THAT YOU REQUEST AN OPINION FROM *YOUR OWN LIFE INSURANCE COUNSELOR.* WE ARE CERTAIN HE WILL ADVISE YOU WISELY.

ALL POLICIES PROVIDE
LIFETIME BENEFITS FOR ACCIDENTS
TEN YEAR BENEFITS FOR SICKNESS

(Sickness benefits payable to age 72)

POLICY No. 1
"FIRST AND EIGHTH DAY COVERAGE"

ACCIDENT BENEFITS BEGIN FIRST DAY
SICKNESS BENEFITS BEGIN EIGHTH DAY *or*
First Day of Hospitalization—Whichever Occurs First

PLAN*	WEEKLY BENEFITS	ACCIDENTAL DEATH BENEFITS	ANNUAL PREMIUM	SEMI-ANNUAL PREMIUM
A	$150.00	$5,000.00	$384.00	$192.00
B	100.00	5,000.00	258.00	129.00
C	75.00	5,000.00	196.00	98.00
D	50.00	5,000.00	133.00	66.50

POLICY No. 2
"THIRTY-DAY WAITING PERIOD"

BENEFITS BEGIN ON THE THIRTY-FIRST DAY

PLAN*	WEEKLY BENEFITS	ACCIDENTAL DEATH BENEFITS	ANNUAL PREMIUM	SEMI-ANNUAL PREMIUM
A	$150.00	$5,000.00	$308.00	$154.00
B	100.00	5,000.00	208.00	104.00
C	75.00	5,000.00	158.00	79.00
D	50.00	5,000.00	108.00	54.00

POLICY No. 3
"SIX-MONTH WAITING PERIOD"

BENEFITS BEGIN ON THE 181ST DAY

PLAN*	WEEKLY BENEFITS	ACCIDENTAL DEATH BENEFITS	ANNUAL PREMIUM	SEMI-ANNUAL PREMIUM
A	$150.00	$5,000.00	$234.00	$117.00
B	100.00	5,000.00	158.00	79.00
C	75.00	5,000.00	121.00	60.50
D	50.00	5,000.00	83.00	41.50

AGE LIMITS

***Members up to age 60 may apply for either Plan A, B, C or D. (All Policies)**
***Members age 60 to 65 may apply for either Plan C or D. (All Policies)**
***Members age 65 to 70 may apply for Plan D. (All Policies)**

Once enrolled you may continue in same plan to age 70

There can be "extra dividends" on an ECG *investment*

Sanborn Viso-Cardiette

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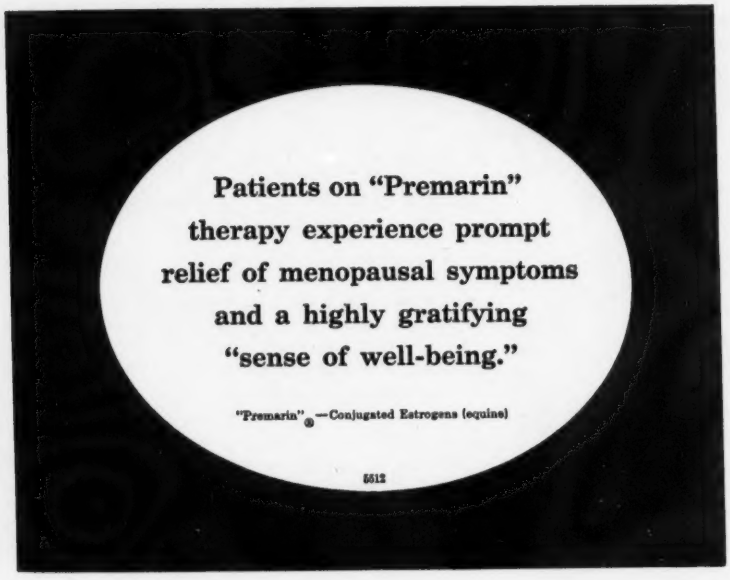

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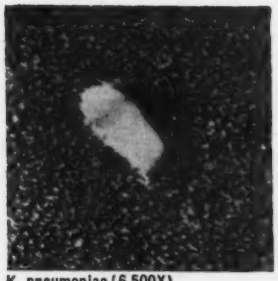
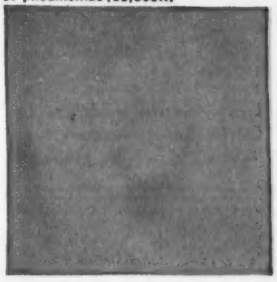
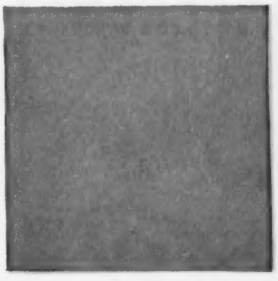


K. pneumoniae (6,500X)



Strep. pyogenes (8,500X)



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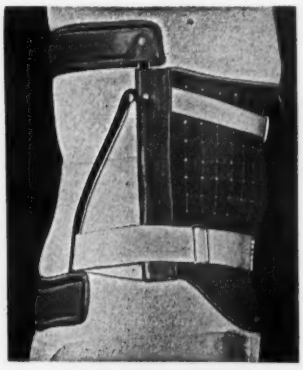

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Lawrence S. Kubie, M. D., New York, N. Y. Neuropsychiatry
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Claude N. Lambert, M. D., Chicago, Ill. Orthopedic Surgery
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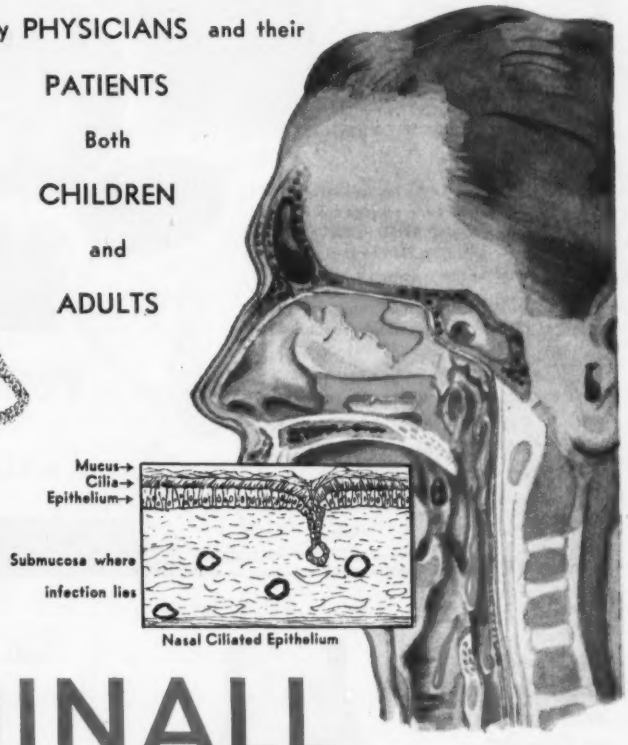

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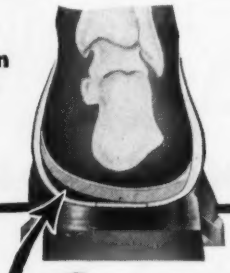

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Surgery of Colon & Rectum, One Week, February 27, April 9.
General Surgery, One Week, February 13, Two Weeks, April 23.
Basic Principles in General Surgery, Two Weeks, April 9.
Gallbladder Surgery, Ten Hours, April 9.
Fractures & Traumatic Surgery, Two Weeks, March 12.

GYNECOLOGY—Office & Operative Gynecology, Two Weeks, February 13, March 12.
Vaginal Approach to Pelvic Surgery, One Week, February 6, March 5.

OBSTETRICS—General & Surgical Obstetrics, Two Weeks, February 27, March 26.

MEDICINE—Internal Medicine, Two Weeks, May 7.
Electrocardiography & Heart Disease, Two Week Basic Course, March 12.
Gastroscopy, Forty-Hour Basic Course, March 19.
Dermatology, Two Weeks, May 7.

RADIOLOGY—Diagnostic X-Ray, Two Weeks, February 6.
Clinical Use of Radioactive Iodine, One Week, April 2.
Clinical Uses of Radioisotopes, Two Weeks, May 7.

PEDIATRICS—Intensive Review Course, Two Weeks, May 14.
Neurological Diseases; Cerebral Palsy, Two Weeks, June 18.

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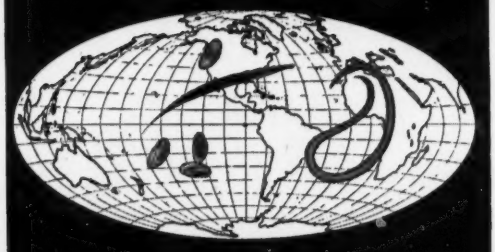

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Bumbalo, T. S., Gustina, F. J., and Oleksiak, R. E.: J. Pediat. 44:386, 1954.

White, R. H. R., and Standen, O. D.: Brit. M. J. 2:755, 1953.

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Brown, H. W.: J. Pediat. 45:419, 1954.

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1. Ryan, Robert S.: Pentergot, **J. Missouri M. A.**, 52:281-283 (April) 1955.

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1. **LEVY, S.: Pharmacological treatment of aged patients in a State mental hospital, J. A. M. A. 153: 1260-1265, 1953.**

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(1) Jeans, P. C., in A. M. A. Handbook of Nutrition, ed. 2, Philadelphia, Blakiston, 1951, pp. 275-278.

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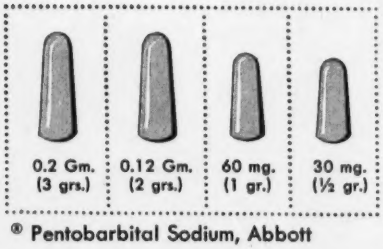

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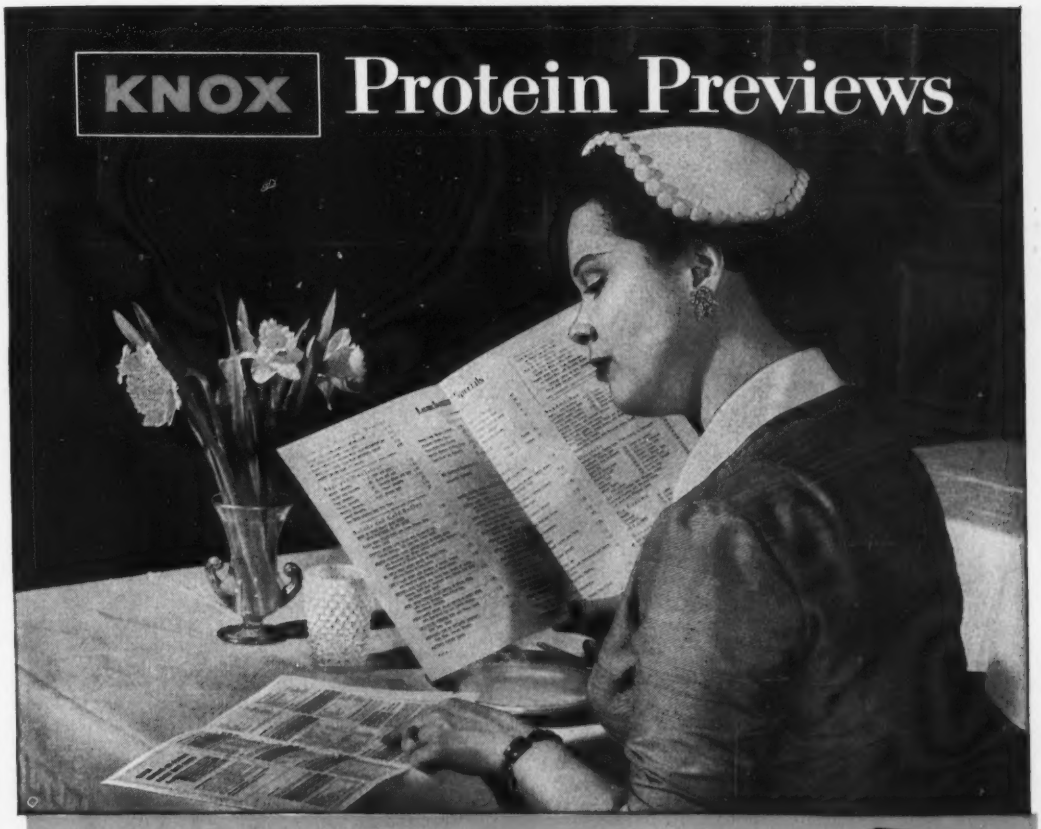

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1. Developed by the U. S. Public Health Service assisted by committees of The American Diabetes Association, Inc. and The American Dietetic Association.

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The nutritional statements made in this advertisement have been reviewed and found consistent with current medical opinion by the Council on Foods and Nutrition of the American Medical Association.

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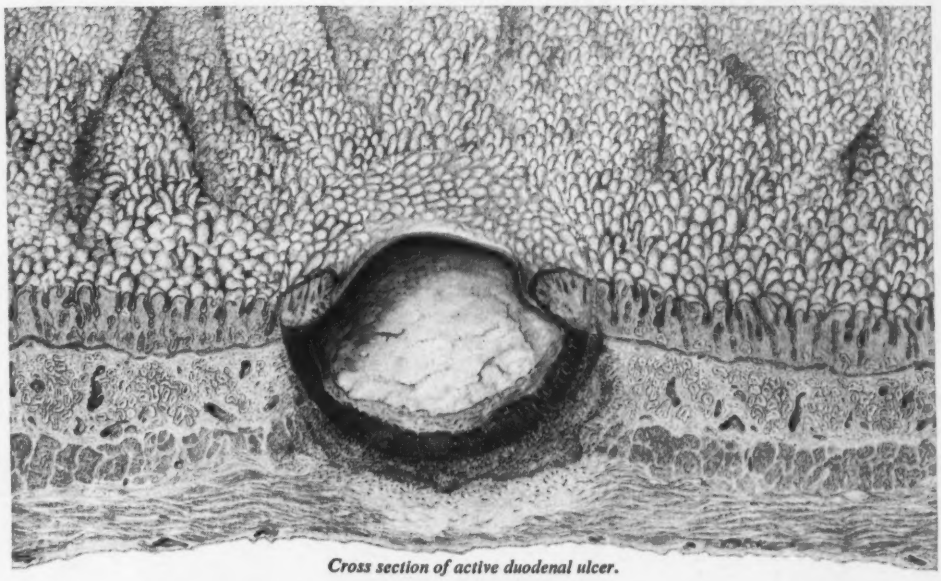
PRO-BANTHĪNE® IN DUODENAL ULCER



Cross section of active duodenal ulcer.

Dramatic Remission of Ulcer Pain

Pain of ulcer is associated with hypermotility; the pain is relieved when abnormal motility is controlled by Pro-Banthine.

"In studying[1] the mechanism of ulcer pain, it is obvious that there are at least two factors which must be considered: namely, hydrochloric acid and motility.

"... our studies indicate that ulcer pain in the uncomplicated case is invariably associated with abnormal motility....

"Prompt relief of ulcer pain by ganglionic blocking agents ... coincided exactly with cessation of abnormal motility and relaxation of the stomach."

Pro-Banthine Bromide (β-diisopropylaminoethyl xanthene-9-carboxylate methobromide, brand of propantheline bromide) is a new, improved, well tolerated anticholinergic agent which consistently reduces hypermotility of the stomach and intestinal tract. In peptic ulcer therapy[2] Pro-Banthine has brought about dramatic remissions, based on roentgenologic evidence. Concurrently there is a reduction of pain, or in many instances, the pain and discomfort disappear early in the program of therapy.

One of the typical cases cited by the authors[2] is that of a male patient who refused surgery despite the presence of a huge crater in the duodenal bulb.

"This ulcer crater was unusually large, yet on 30 mg. doses of Pro-Banthine [q.i.d.] his symptoms were relieved in 48 hours and a most dramatic diminution in the size of the crater was evident within 12 days."

Pro-Banthine is proving equally effective in the relief of hypermotility of the large and small bowel, certain forms of pylorospasm, pancreatitis and ureteral and bladder spasm. G. D. Searle & Co., Research in the Service of Medicine.

---

1. Ruffin, J. M.; Baylin, G. J.; Legerton, C. W., Jr., and Texter, E. C., Jr.: Mechanism of Pain in Peptic Ulcer, Gastroenterology *23*:252 (Feb.) 1953.

2. Schwartz, I. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: A Clinical Evaluation of a New Anticholinergic Drug, Pro-Banthine, Gastroenterology *25*:416 (Nov.) 1953.

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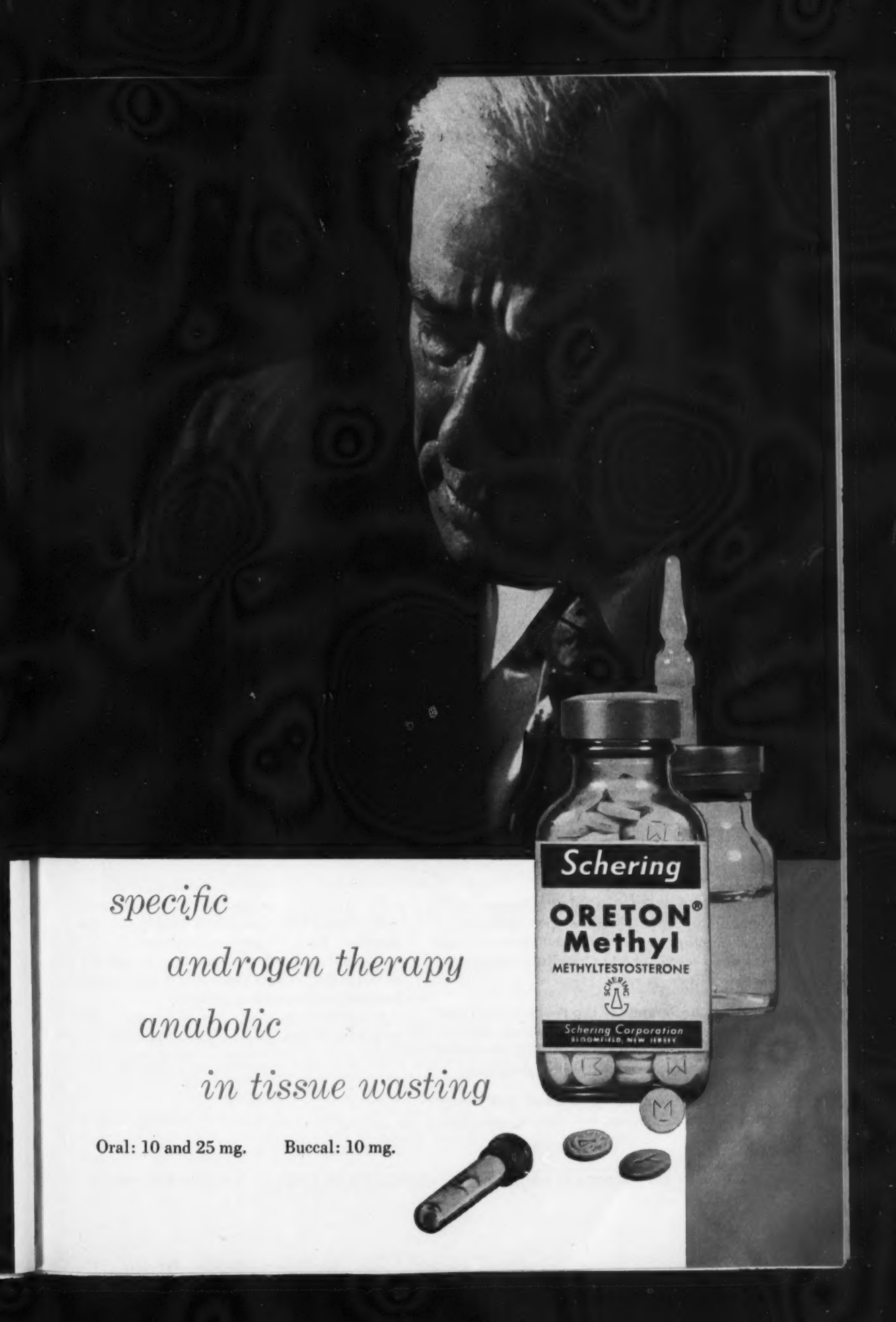

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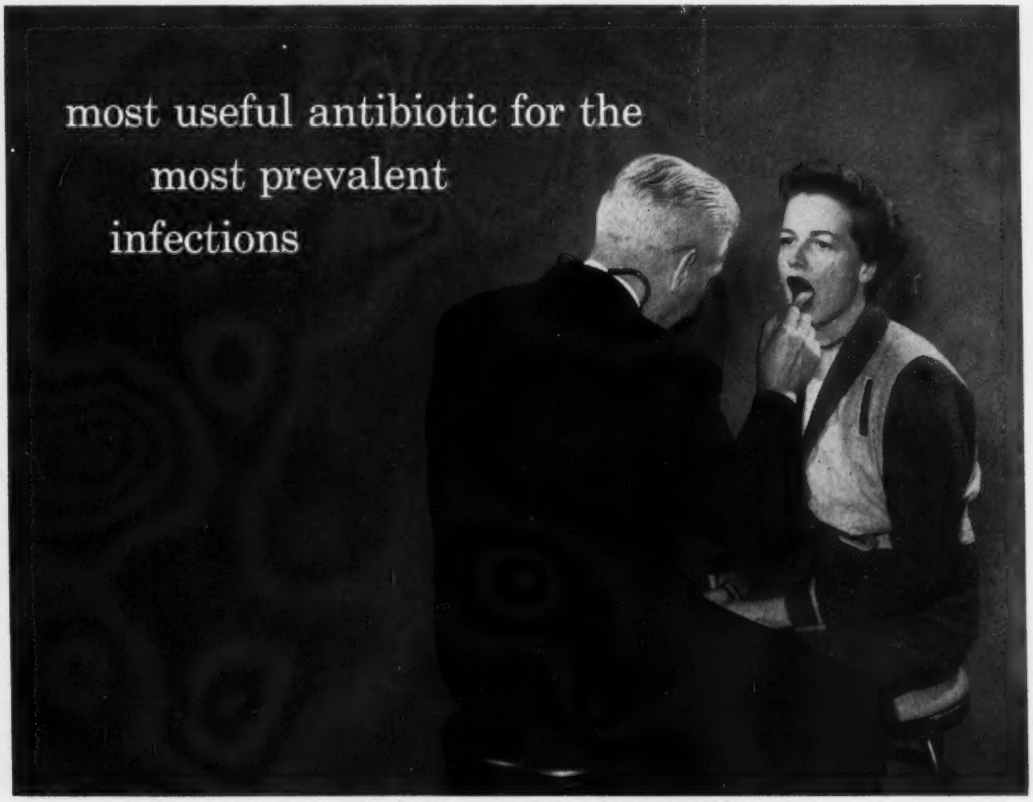

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Gastro-intestinal hypermotility is not observed in bed patients and is seen in only a small percentage of ambulant patients.

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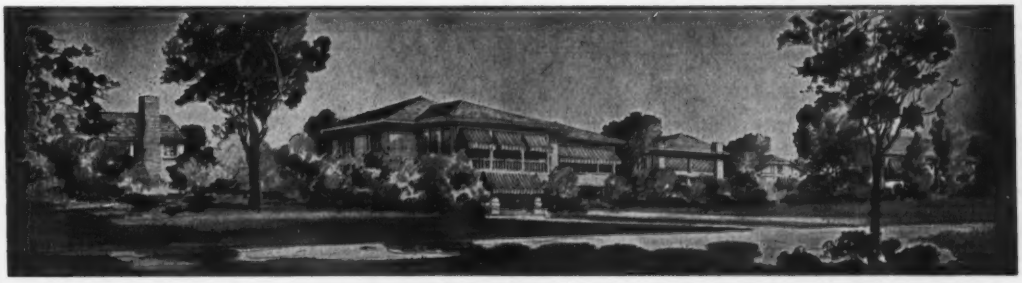

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B_6	0.5 mg.	Molybdenum	0.2 mg.
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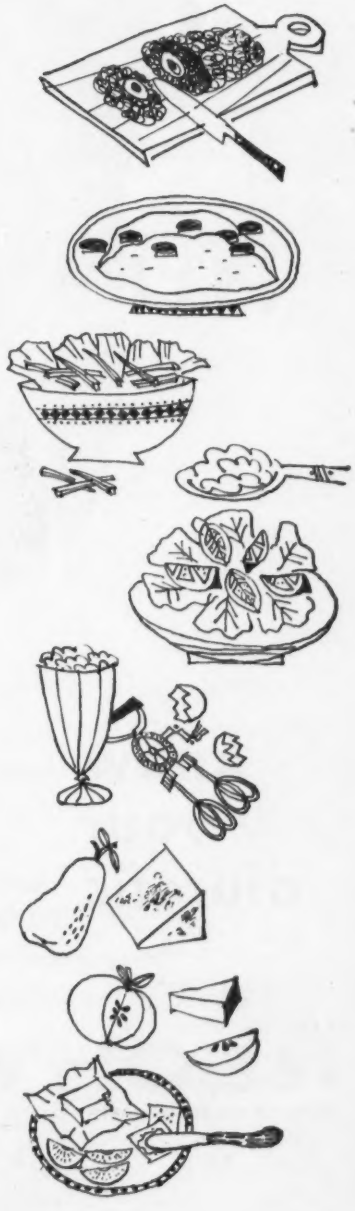

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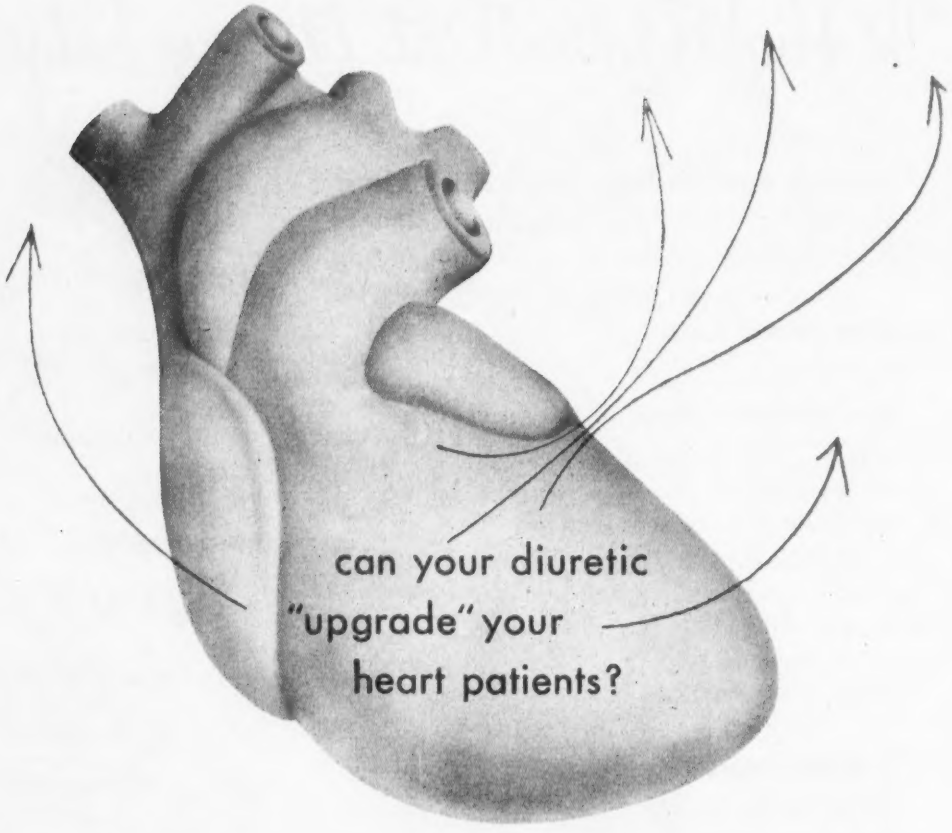

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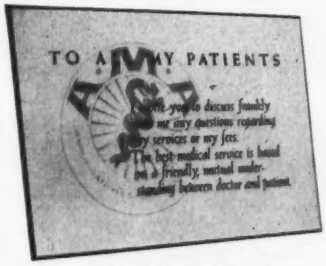

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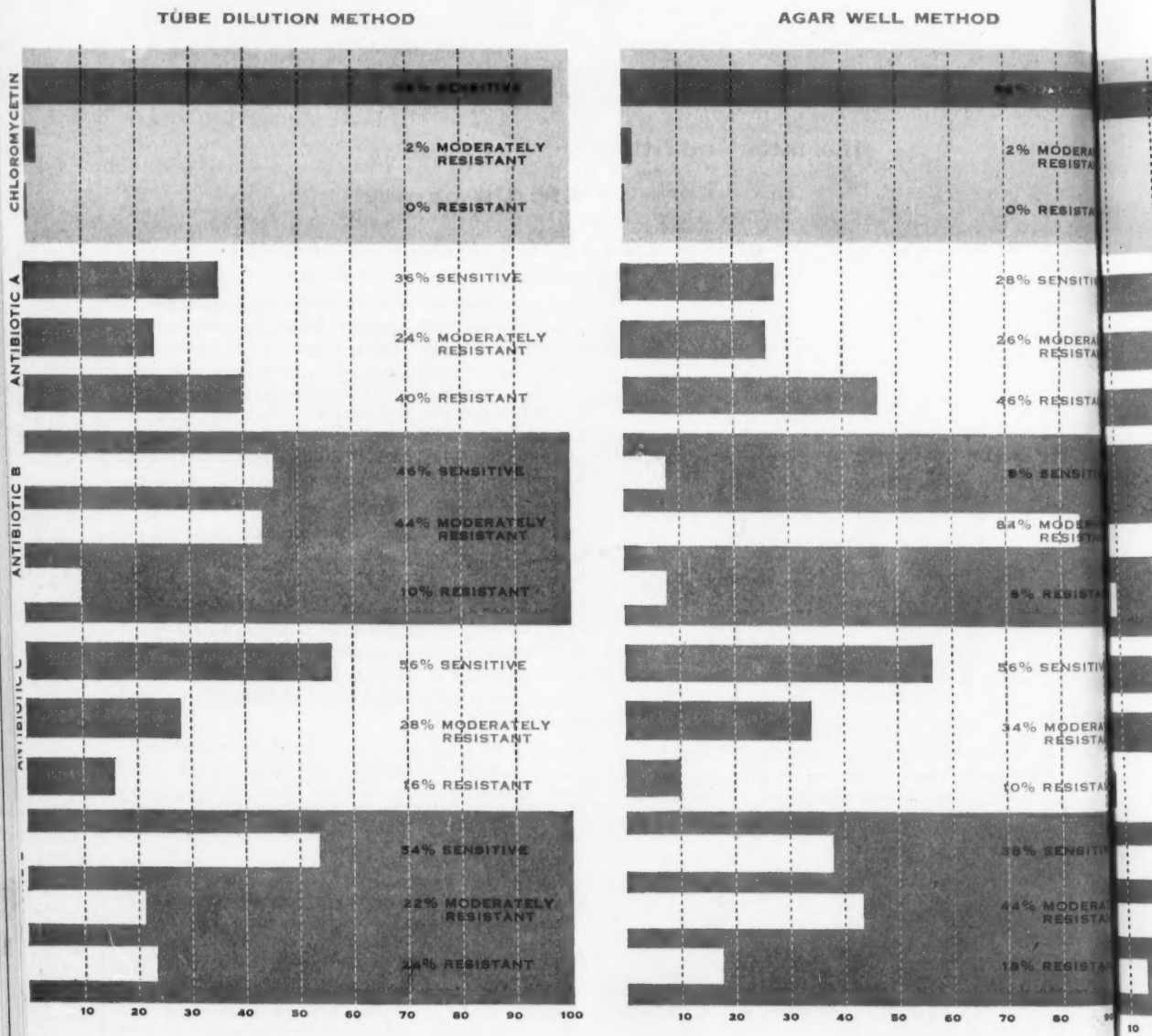

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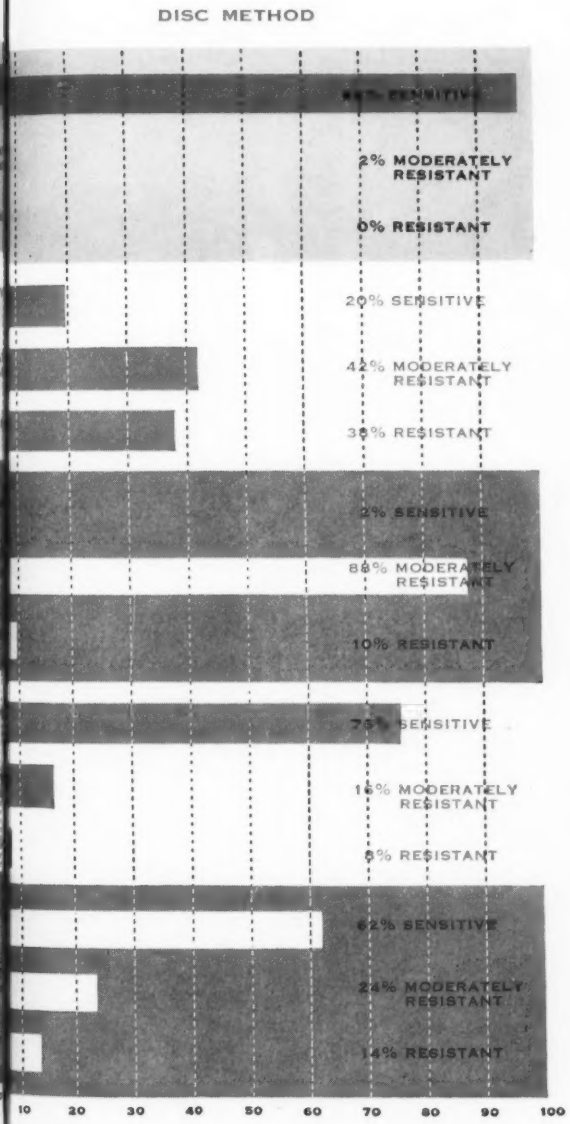

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